2007
PRIMARY 6 MATHS

| 1.	ACS (BAKER)	-	SA1	SA2
2.	AI TONG	-	SA1	SA2
3.	HENRY PARK	-	SA1	SA2
4.	MAHA BODHI SCHOOL	-	-	SA2
5.	NAN HUA	CA1	SA1	SA2
6.	NANYANG	CA1	SA1	SA2
7.	PEI CHUN	-	-	SA2
8.	PEI HWA	CA1	SA1	SA2
9.	RAFFLES GIRL	-	SA1	SA2
10.	ROSYTH	CA1	SA1	SA2
11.	SCGS	-	SA1	SA2

Total :   Pages

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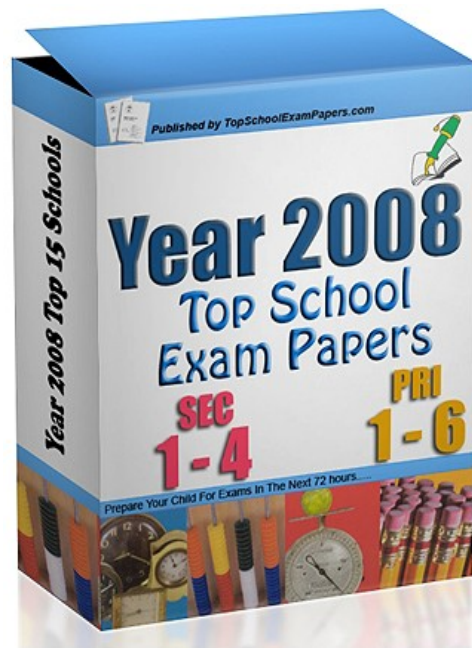
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Anglo-Chinese School (Primary)

MID-YEAR EXAMINATION 2007
MATHEMATICS

Booklet A

Name: _____( )

Class: Primary 6_

Date: 8 May 2007

Duration of Booklet A & B: 2 h 15 min

THIS BOOKLET CONTAINS PAGES 1 to 6.

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

FOLLOW ALL INSTRUCTIONS CAREFULLY.

SECTION A - Multiple Choice Questions (20 MARKS)

Questions 1 to 10 carry 1 mark each.
Questions 11 to 15 carry 2 marks each.
For each question, four options are given. One of them is the correct answer.
Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the
Optical Answer Sheet (OAS).

1.   What is the value of $84 - (25 - 5 \times 3) + 9$?

1)   53

2)   63

3)   65

4)   83

2.   Express 7.08 litres in milliliters.

1)   708 *ml*

2)   7 008 *ml*

3)   7 080 *ml*

4)   7 800 *ml*

3.   Joe is 5 years younger than Mary. If Mary is *z* years old, what is their
      average age?

1) $\dfrac{(5 + z)}{2}$ years old

2) $\dfrac{(z - 5)}{2}$ years old

3) $\dfrac{(2z - 5)}{2}$ years old

4) $\dfrac{(2z + 5)}{2}$ years old

A - 1

4.   The average mass of 5 girls is 35 kg. If the total mass of the first 4 girls is 130 kg, what is the mass of the fifth girl?

    1)   7 kg
    2)   35 kg
    3)   45 kg
    4)   95 kg

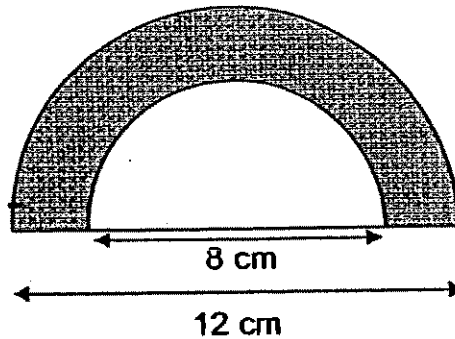5.   James spent $\frac{1}{5}$ of his salary on transport and used $\frac{5}{8}$ of the remainder on lunch. What fraction of his salary was left?

    1) $\frac{1}{8}$

    2) $\frac{3}{10}$

    3) $\frac{3}{8}$

    4) $\frac{1}{2}$

6.   The ratio of the number of apples to the number of oranges at a fruit stall is 5 : 7. If there are 21 oranges, how many apples and oranges are there?

    1)   15
    2)   36
    3)   42
    4)   105

A - 2

7.⠀⠀Find the area of the shaded part. Give your answer in terms of π.

8 cm

12 cm

1)⠀⠀$10\,\pi\;cm^2$

2)⠀⠀$20\,\pi\;cm^2$

3)⠀⠀$26\,\pi\;cm^2$

4)⠀⠀$52\,\pi\;cm^2$

8.⠀⠀There are 1 800 pupils in school ABC. If there are 800 girls in the school, how many per cent more boys than girls are there?

1)⠀⠀20%

2)⠀⠀25%

3)⠀⠀44%

4)⠀⠀80%

9.⠀⠀In $1\frac{2}{3}h = \boxed{?}$ min, which of the following is the missing number in the box?

1)⠀⠀80

2)⠀⠀100

3)⠀⠀120

4)⠀⠀140

A - 3

10. The figure below shows a parallelogram.
     How many line(s) of symmetry does it have?
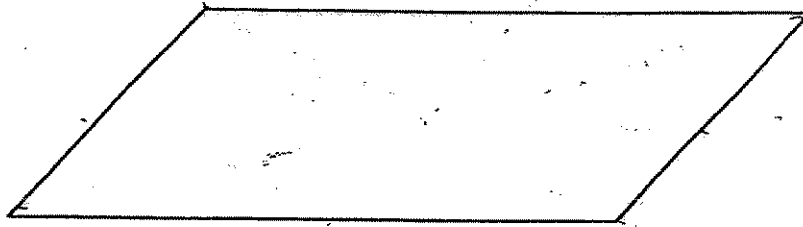
     1)   1

     2)   2

     3)   0

     4)   4

11. How many 3-cm cubes can be cut from a block of wood measuring
     12 cm by 8 cm by 9 cm?

     1)   18
     2)   24
     3)   32
     4)   36

12. Daisy's height is $1\frac{1}{4}$ of Josephine's height. If their average height is
   162 cm, find Josephine's height.

     1)   72 cm
     2)   90 cm
     3)   144 cm
     4)   180 cm

A - 4

13. The ratio of the amount of water in Container A to that in Container B is 1 : 2 at first. $\frac{1}{3}$ of the water in Container A is poured into Container B, then $\frac{1}{4}$ of the water in Container B is poured into Container A. What is the new ratio of water in Container A is to Container B?

1) 2 : 7

2) 1 : 2

3) 5 : 7

4) 3 : 4

14. Lucas and Daryl left Town X for Town Y at 10 00. Lucas drove at an average speed of 86 km/h. Daryl was 44 km behind Lucas at 14 00. What was Daryl's average speed?

1) 70 km/h

2) 75 km/h

3) 97 km/h
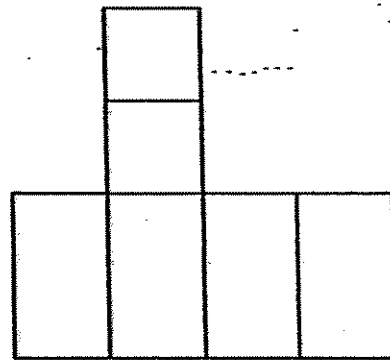
4) 100 km/h

A - 5

15.   The figure shows a cuboid.
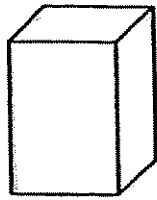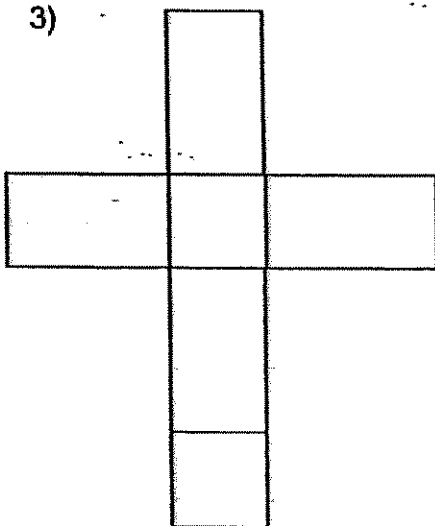

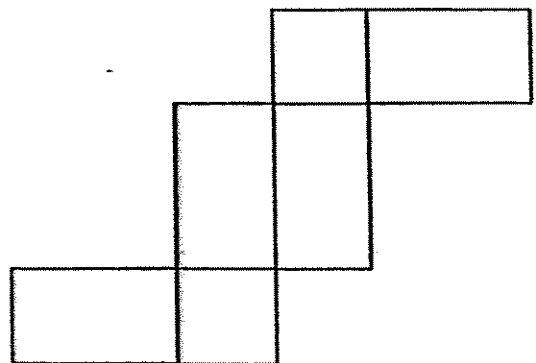Which of the following is not a net of the cuboid above?

1)
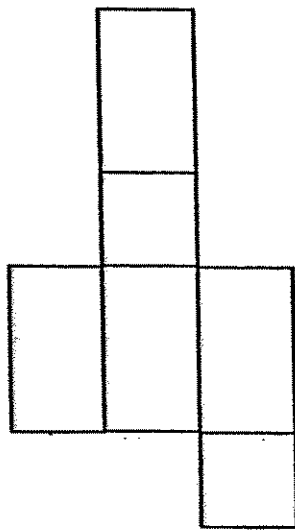
2)

3)

4)

A –6

Anglo-Chinese School
(Primary)

MID-YEAR EXAMINATION 2007
MATHEMATICS

Booklet B

Name: _____(   )

Class: Primary 6D

Date: 8 May 2007

Duration of Booklet A & B: 2 h 15 min

Section	Contents	Marks	Marks Obtained
A	Multiple Choice Questions	20	
B	Short Answers: Part I	10	
	Short Answers: Part II	20	
C	Problem Sums	50	
	Total Marks	100	
	Parent's signature		

THIS BOOKLET CONTAINS PAGES 7 to 24.

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FOLLOW ALL INSTRUCTIONS CAREFULLY.

SECTION B - Short Answers (30 MARKS)

Part I (10 × 1 mark)

Questions 16 to 25 carry 1 mark each. Write your answer in the space provided. Give your answers in the units stated.

16.   Find the value of $2a + 6 + 4a - 4$ if $a = 3$.

Answer : _____

17.   How many $\frac{4}{5}$ s are there in 48?

Answer : _____

18. $27 \times 49 = \boxed{} \times 49 - (3 \times 49.)$ What is the missing number in the box?

Answer : _____

19.   The breadth of a rectangle is $\frac{1}{4}$ m. Find the area of the rectangle if the length is twice its breadth.

Answer : _____ m^2

B - 7

20.   A basket with 5 oranges weighs 2.75 kg. If the basket weighs 1 kg 50 g, what is the weight of the oranges?

Answer : _____

21.   A basin is $\frac{5}{7}$ filled with water. It needs 30 litres more water to fill the basin completely. What is the capacity of the basin?

Answer : _____ litres

22.   The average speed of a racing car is 240 km/h. How far will it travel in 35 minutes?

Answer : _____

23.   Express 24 minutes after midnight using the 24-hour clock.

Answer : _____

B - 8

24. The ratio of the number of ducks to the number of chickens in a farm is
     4 : 5. The number of roosters is $\frac{3}{7}$ the number of hens. If there are 42
     hens, find the number of ducks.

     Answer : _____

25. The table shows the number of toys two machines produced in 6 minutes.

Machines	Number of toys produced in 6 minutes
Machine A	240
Machine B	300

     At the rate given, how many toys can Machine A and Machine B produce
     altogether in 120 seconds?

     Answer : _____

B - 9

Part II (10 × 2 marks)

Questions 26 to 35 carry 2 marks each. Show all workings clearly.
Write your answer in the space provided. Give your answers in the units stated.

26.   If the breadth of a rectangle is 3y cm and the length is 2 cm longer than the breadth, find the perimeter of the rectangle. Express your answer in terms of y.

Answer : _____cm

27.   The average of 4 numbers is x and the average of another 5 numbers is 8. What is the average of the 9 numbers? (Leave your answer in terms of x).

Answer : _____

28.   The ratio of the number of tennis balls in Basket A to the number of tennis balls in Basket B is 3 : 4. If $\frac{1}{6}$ of the tennis balls in Basket A are moved to Basket B, there will be 24 more tennis balls in Basket B than in Basket A. How many tennis balls were there in Basket A at first?

Answer : _____

B-10

29.   Mark had $212 in his piggy bank. He had a total of 38 notes comprising of $2 and $10 notes. How many more $2 notes did he have than $10 notes?

Answer : _____

30.   The figure below is made up of a square and a quadrant. The area of the square is 196 cm^2 . Find the perimeter of the shaded part. (Take $\pi = \frac{22}{7}$)
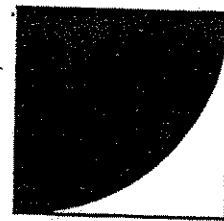
Answer : _____ cm

31.   A coil of wire was 3 m long. After cutting off 25 equal pieces from it, the length of the remaining wire was 0.5 m. What was the length of each of the 25 pieces?

Answer : _____ m

B-11

32.   A watch dealer bought 5 watches at a discount of 20%. He paid a total of
       $300 for the 5 watches. What was the usual price of each watch?

Answer : $ _____

33.   .Mrs Tan bought some cookies. She gave 30% of the cookies to her
       neighbour and ate 40% of the remaining cookies. If she had 84 cookies
       left, how many cookies did she buy?

Answer : _____

34.   A ball was dropped from a height of 36 m. Each time it hit the ground, the
       ball would rebound half of the height from which it had fallen. Find the
       total height it had travelled just when the ball hit the ground for the third
       time.

Answer: _____ m

B -12

35. The table below shows the parking charges at a car park:

Time	Charge
7.00 a.m. to 10.00 p.m.	$0.50 per $\frac{1}{2}$ hour
Overnight parking	$2.00

Mr Kang parked his car at the car park from 9.00 p.m. on Thursday to 9.00 a.m. on Friday. How much did he have to pay?

Answer : $_____

B -13

SECTION C - Problem Sums (50 MARKS)

For each question from 36 to 48, show your working and mathematical statements clearly in the space below each question. Write your answer in the answer space provided. Marks awarded are shown in the brackets [ ].

36. A pen costs $2m and 6 magazines cost $8m. How much would 3 such pens and 9 such magazines cost?

Answer :_____[3M]

37. Lisa and Melinda had $175 altogether. After they had given away $\frac{2}{5}$ of the total sum of money, Lisa had $\frac{7}{8}$ as much money as Melinda. How much money must Melinda give to Lisa so that they will now have an equal amount of money?

Answer :_____[3M]

B -14

38. Each time Ann deposits $4 into her bank account, her father deposits thrice as much as Ann in her account. When Ann has $208 in her bank account, how much did her father deposit in her account?

Answer :_____[3M]

39. There are 30 problem sums in a test. 4 marks are given for each correct answer and 1 mark will be deducted for each incorrect answer. Joshua obtained 85 marks. How many problem sums did he answer incorrectly?

Answer :_____[3M]

B -15

40.

Mr Tan's monthly expenditure for the month of June
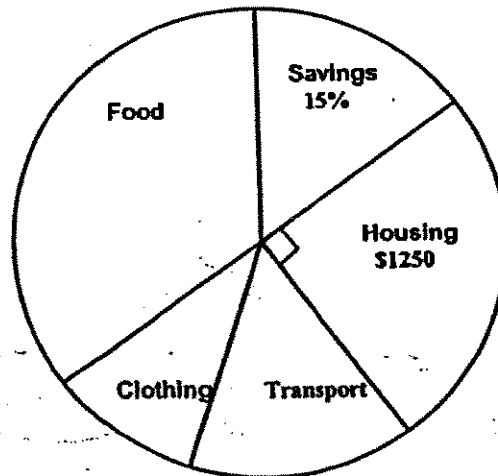
The pie chart above shows how Mr Tan used his monthly salary in June.

(a) How much did Mr Tan save?

(b) In August, Mr Tan's salary increased by 5%. If he spent the same amount of money in August as in June, what fraction of his August salary did he save?

Answer : (a)_____[1M]

(b)_____[2M]

B -16

41.   The figure is made up of 2 identical quarter-circles and 2 identical semi-circles. The radius of each quarter-circle is 20 cm and the diameter of each semi-circle is 40 cm. (Take $\pi = 3.14$)

(a) Find the perimeter of the shaded figure.
(b) Find the area of the shaded figure.

40 cm

2 cm

Answer : (a) _____ [2M]

(b) _____ [2M]

B -17
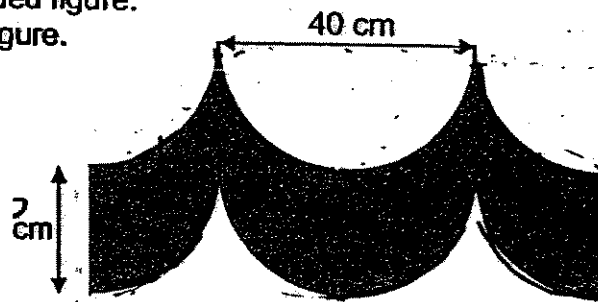
42. Andrew has 70 more stamps than Basil. If Basil gives Andrew 40 stamps, the number of stamps Andrew has will be 6 times that of Basil's.

(a) How many stamps does Andrew have?
(b) How many stamps does Basil have?

Answer : (a) _____[2M]

(b)_____[2M]

B -18

43.   Bryan, Henry and Daniel had some marbles. $\frac{5}{9}$ of the marbles belonged to Bryan. The remaining marbles belonged to Henry and Daniel in the ratio of 3 : 5. Given that Bryan had 161 more marbles than Henry, find the number of marbles belonged to Daniel.

Answer : _____ [4M]

B -19

44.   Durians were sold at $12 each. A mango cost 50% less than a durian. Walter paid $408 for some durians and mangoes.70% of the fruits he bought were durians.How much more money did he spend on durians than on mangoes?

Answer : _____[4M]

B -20

45. There were some flowers at a flower shop. The ratio of the number of roses to the number of tulips was 2 : 3. When 50 more roses and 30 more tulips were added, the ratio of the number of roses to the number of tulips became 5 : 6. How many flowers were there at first?

Answer : _____ [4M]

B -21

46. Joel and Mary share a packet of sweets in the ratio 2 : 3. After Joel bought 35 more sweets and Mary ate 10% of hers, they had an equal number of sweets.

(a) How many sweets had Mary eaten?
(b) How many sweets were there in the packet at first?

Answer: (a)_____[3M]

(b)_____[2M]

B -22

47. The distance between Town A and Town B was 558 km. Mr Chan started from Town A and drove towards Town B at an average speed of 80 km/h. 30 min later, Mr Ho started from Town B and drove towards Town A at a speed of 68 km/h.

   (a)   What distance had Mr Chan travelled when he met Mr Ho?
   (b)   At what speed should Mr Ho increase by in order to reach Town A in 4 hours' time after meeting Mr Chan?

Answer: (a)_____[3M]

(b)_____[2M]

B -23

48. The figure below shows the number of toothpicks used to form different number of triangles. Study it carefully and answer the following questions:

1 triangle   2 triangles   3 triangles   4 triangles

a) Complete the following table:

Number of triangles	1	2	3	4	5	6	......	10
Number of toothpicks	3	5	7	9	11	(i)	......	(ii)

[M1]

b) How many toothpicks are needed to form 100 triangles?

c) How many triangles can you form with 101 toothpicks?

Answer: (b)_____[2M]

(c)_____[2M]

Setters: Mdm Farisa and Mr Kelvin Lim
Vetters: P6 teachers

B -24

ANSWER SHEET

A C S PRIMARY SCHOOL   – PRIMARY 6 MATHEMATICS 2007
SEMESTRAL ASSESSMENT (1)

1. 4
2. 3
3. 3
4. 3
5. 2
6. 2
7. 1
8. 2
9. 2
10. 3
11. 2
12. 3
13. 3
14. 2
15. 2
16. 20
17. 60
18. 30
19. 1/8
20. 1.7kg
21. 105 litres
22. 140km
23. 0024
24. 48
25. 180
26. (12y+4)cm
27. $\dfrac{4x+40}{9}$
28. 36 tennis balls
29. 4 more
30. 50cm
31. 0.1m
32. $75

33. 200 cookies
34. 90m
35. 10h-9h=1h
    0.50x2=1
    1+2=3
    9h-7h=2h
    0.5x4=2
    3+2=$5
36. $(18m)
37. $3.50
38. $156
39. 7 incorrectly
40. a)$750
    b)4/21
41. a)291.2cm
    b)1600cm2
42. a)140 stamps
    b)70 stamps
43. 115 marbles
44. $264
45. 250 flower
46. a)15 sweets
    b)250 sweets
47. a)320km
    b)120km/h
48. a)i)13 ii)21
    b)201 toothpicks
    c)50 triangles

Anglo-Chinese School (Junior)/Anglo-Chinese School (Primary)

P6 MATHEMATICS 2007

COMBINED PRELIMINARY EXAMINATION

BOOKLET A

Name: _____ (   )   Class: Primary 6 ___
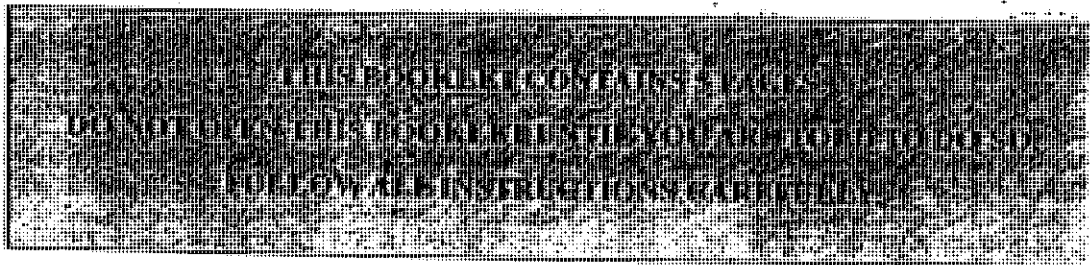
Date: 22 August 2007   Duration of paper: 2h 15 min

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.
For each question, four options are given. One of them is the correct answer.
Mark your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the
Optical Answer Sheet   (20 marks)

---

1   Simplify $12w - 5 - 7w + 8$.

    (1) $5w + 3$
    (2) $5w - 3$
    (3) $5w + 13$
    (4) $5w - 13$

2   Express $\dfrac{1}{40}$ as a decimal.

    (1)   0.025
    (2)   0.04
    (3)   0.25
    (4)   0.4

3   Express $\dfrac{5}{6}$ hour in minutes.

    (1)   10
    (2)   50
    (3)   300
    (4)   360

4   What is the approximate height of a teacher's table?

    (1)   7 cm
    (2)   7 m
    (3)   70 cm
    (4)   70 m

5   A block of metal, 16 cm by 8 cm by 4 cm, was melted and recast into the
shape of a cube. What is the length of each side of the cube?

    (1)   6 cm
    (2)   8 cm
    (3)   12 cm
    (4)   16 cm

1

6   Jolene and Mary had an equal number of beads. If Mary gave $\frac{2}{7}$ of her beads to Jolene, what was the ratio of Mary's beads to Jolene's beads?

   (1)   5 : 7
   (2)   7 : 5
   (3)   5 : 9
   (4)   9 : 5

7   The chairs in an examination hall were arranged in rows. Each row had the same number of chairs. Cheryl sat on one of the chairs. There were 7 chairs to her right and 4 chairs to her left. There were 7 chairs in front of her and 3 chairs behind her. How many chairs were there in the examination hall?

   (1)   110
   (2)   120
   (3)   121
   (4)   132

8   John bought 50 marbles. He bought 10 green marbles and 18 blue marbles. The rest were red marbles. What percentage of the marbles were red?

   (1)   22%
   (2)   44%
   (3)   54%
   (4)   64%

9   Which of the following is the net of a cube?

           A   B   C   D

   (1)   A
   (2)   B
   (3)   C
   (4)   D

2
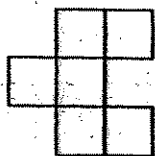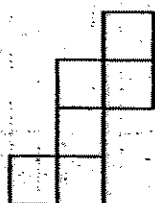
10   Which of the following shapes has exactly 2 lines of symmetry?
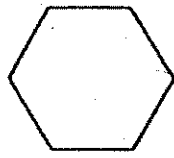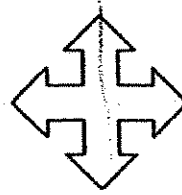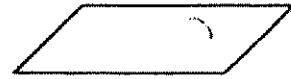
A   B   C   D

(1)   A
(2)   B
(3)   C
(4)   D

11   The ratio of two numbers is 7 : 4. The sum of the two numbers is 24 more than their difference. What is the sum of the two numbers?

(1)   9
(2)   33
(3)   56
(4)   88

12   What is the maximum number of circles of radius 2 cm that can be cut out from a rectangle 20 cm by 18 cm?

(1)   16
(2)   18
(3)   20
(4)   90

13   A rectangular tank was filled with water flowing from a tap. At 10.00 a.m., the tank was empty. At 1.00 p.m., the tank was $\frac{1}{3}$ filled with water.

At what time would the tank be $\frac{8}{9}$ filled with water flowing from the tap?

(1)   4.00 p.m.
(2)   5.00 p.m.
(3)   6.00 p.m.
(4)   7.00 p.m.

3

14   In the figure below, which is not drawn to scale, what is the value of
      $a + b + c + d$?
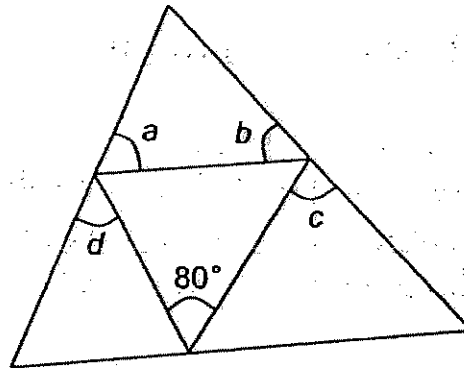
      (1)   100°
      (2)   120°
      (3)   260°
      (4)   320°

15   The pie chart below shows how Tommy spent his money. What
      percentage of his money did he spend on food?
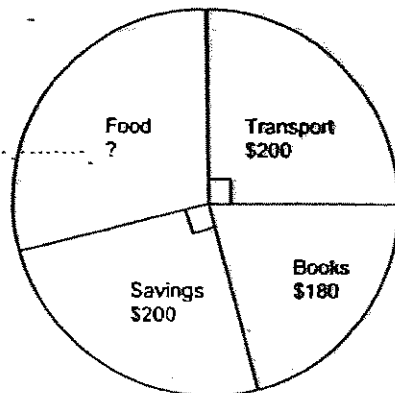
      (1)   20 %
      (2)   25 %
      (3)   27.5 %
      (4)   55.5 %

4

Anglo-Chinese School (Junior)/ Anglo-Chinese School (Primary)

P6 MATHEMATICS 2007

COMBINED PRELIMINARY EXAMINATION

BOOKLET B

Name:_____(   )   Class: Primary 6 ____

Date: 22 August 2007   Duration of paper: 2h 15min

_____
Parent's/Guardian's signature

SECTION A. Multiple Choice Questions	20	
SECTION B. Shorts answers: Part I	10	
SECTION B. Shorts answers: Part II	20	
SECTION B. Problem Sum	50.	
Total	100	

THIS BOOKLET CONTAINS 19 PAGES.

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

FOLLOW ALL INSTRUCTIONS CAREFULLY.

Questions 16 to 25 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

16   Use all the digits 3, 5, 0, 8 to form the smallest four-digit odd number that is divisible by 5.

Ans: _____

17   For every $9 saved by Jeremy, his father would give him another $3 to save. How much did he save on his own if he had $144 in his savings?

Ans: $ _____

18   Ahmad has two 1-dollar coins, three 50-cent coins, eight 20-cent coins and three 5-cent coins in his wallet. How much money does he have in all?

Ans: $_____

1

Sub-total: [   ]

19   Observe the following pattern and find the value of the sum of *m* and *n*.

1, 2, 6, 7, 12, 13, 19, *m*, 27, 28, *n*, 37, ...

Ans: _____

20   Ben started jogging at 0830 and finished at 1010. How long did he take to complete his jog?

Ans: _____ h _____ min

21   Look at the figure below. What is the mass of the packet of rice in kg and g?

Ans: _____ kg _____ g

2
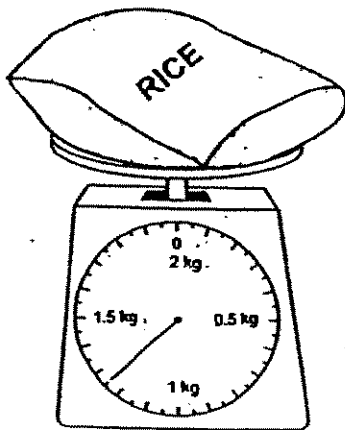
Sub-total: [   ]

22   Howard has a string measuring 310 cm. Roy's string is $\frac{1}{4}$ m longer than Howard's string. Find the length of Roy's string.

Ans: _____m

23   The breadth of a room is $\frac{1}{4}$ its length. What fraction of the room's perimeter is its length? (Give the answer in its simplest form.)

Ans: _____

24   Find the average of the sum of all even numbers between 11 and 19.

Ans: _____

25   There are green, blue and purple balls in a basket. There are 237 more green balls than blue balls. There are 734 more blue balls than purple balls. How many more green balls than purple balls are there?

Ans: _____

3

Sub-total: [   ]

Questions **26** to **35** carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided. For each question which require units, give your answers in the units stated.

(20 marks)

---

26   The solid is made up of 2-cm cubes. All the cubes are stacked in a corner of a room. What is the volume of the solid?
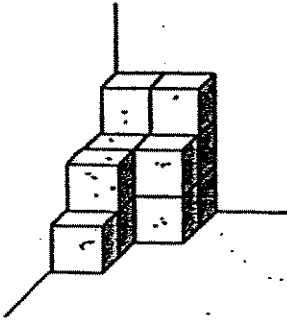
Ans: _____cm³

---

27   Sheela has $30 in her piggy bank. They were a mixture of 20-cent and 50-cent coins. There were 4 more 50-cent coins than 20-cent coins. What is the total number of coins Sheela has in her piggy bank?

Ans: _____

4

Sub-total: [   ]

28　　The perimeter of a rectangle is twice that of a triangle below. How many possible values of its length are there if each length is a whole number?

8 cm

6 cm

7 cm
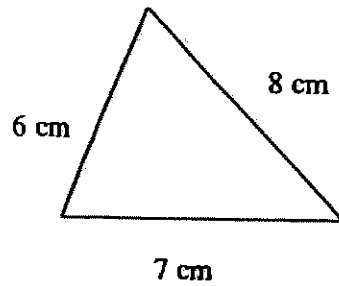
Ans: _____

29　　A pen costs $7 more than a wallet and a story book costs $5 less than the wallet. If the pen and the story book cost $21 altogether, find the cost of the wallet.

Ans: $_____

5

Sub-total: [　　　　　]

30 Mary had some beads. She gave $\dfrac{1}{6}$ of them to her best friend and $\dfrac{1}{2}$ of the remaining beads to her sister. Then she found that she had 75 beads left for herself. How many beads did Mary have at first?

Ans: _____

31 Lisa made some kiwi tarts, apple tarts and peach tarts in the ratio 2 :3 :5. After making another 12 tarts each, the ratio becomes 7 : 9 :13. Find the number of apple tarts she has now.

Ans: _____

6

Sub-total: ☐

32   Water from a tap flows into a rectangular tank at a rate of 450 cm³ per minute. How long does it take to fill $\frac{3}{4}$ of the tank?

20 cm

8 cm

30 cm
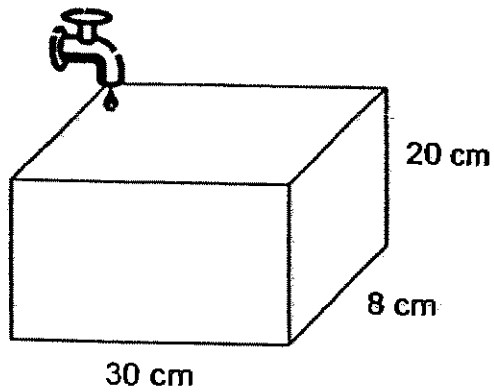
Ans: _____min

___

33   Mrs Tan and her two children paid $70 for the entry tickets to an amusement theme park. If a child ticket is $\frac{3}{4}$ of the price of an adult ticket, what is the price of an adult ticket?

Ans: $_____

7

Sub-total: [   ]

34   It takes 40 workers 8 days to paint a building. How many workers are required to paint a building in 20 days?

Ans: _____

35   Complete the tessellation below by adding two more basic shapes.

8
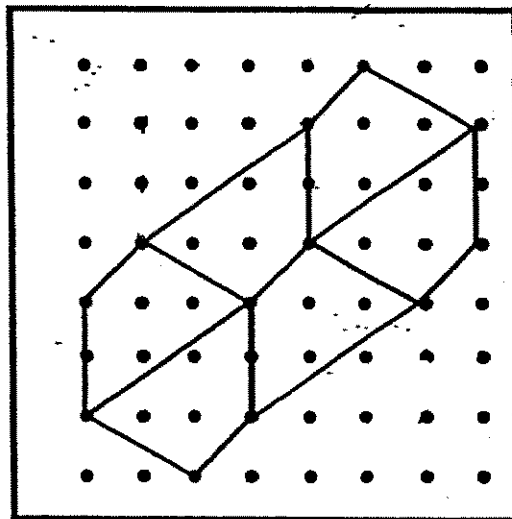
Sub-total: [   ]

For questions **36** to **48**, show your working clearly in the space provided for each question and write your answers in the spaces provided.
The number of marks available is shown in brackets [   ] at the end of each question or part-question.   (50 marks)

---

36   Melinda had an average score of 56 marks in the last three topical tests. How many marks must she score in the fourth test so that she can get an average of 65 marks?

Ans: _____[3]

---

37   In the figure, not drawn to scale, AB is parallel to CD. What is ∠BEF?

Ans: _____[3]

9
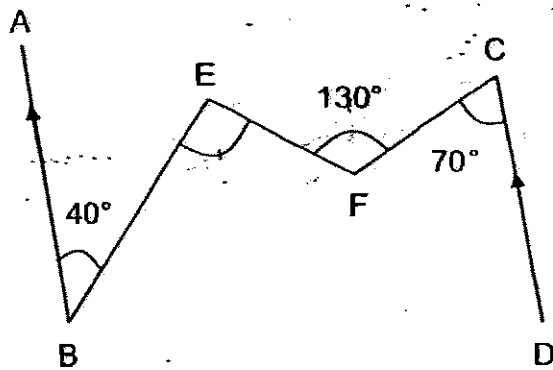
Sub-total: [   ]

38   In the figure, not drawn to scale, ABCD is a square. BDE and BCF are
      equilateral triangles. What is ∠FGE?
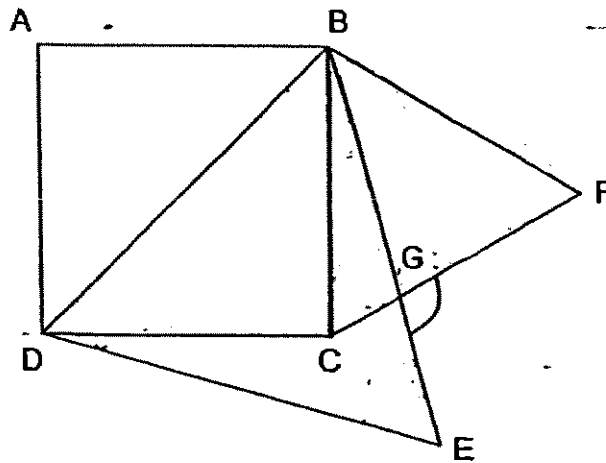
Ans: _____ [3]

39   Leela, Siti and Jane shared $264. Siti had $ k less than Leela and Jane
      had twice as much as Siti.

      (a) How much did Siti have in terms of k?
      (b) If k = $8, how much did Leela and Jane have altogether?

Ans: (a) _____ [1]

      (b) _____ [2]

10

Sub-total: [   ]

40   Fara started collecting stamps in January. In each month from February
      to May, she collected 30 stamps more than the month before. She saved
      a total of 750 stamps from January to May. How many stamps did she
      collect in January?

                                                    Ans: _____ [4]

41   Alex has $1.50 more money than Betty, and three times as much money
      as Colin. The 3 of them have $9.70 altogether. How much does Colin
      have?

                                                    Ans: _____ [4]

                                    11

                                    Sub-total: [   ]

42　　The graph below shows the number of houses built during the period from January to July.

(a)　What was the average number of houses built during March to June?

(b)　What percentage of the total number of houses built was the month of April?

Ans: (a)＿＿＿＿＿＿＿[2]

(b)＿＿＿＿＿＿＿[2]
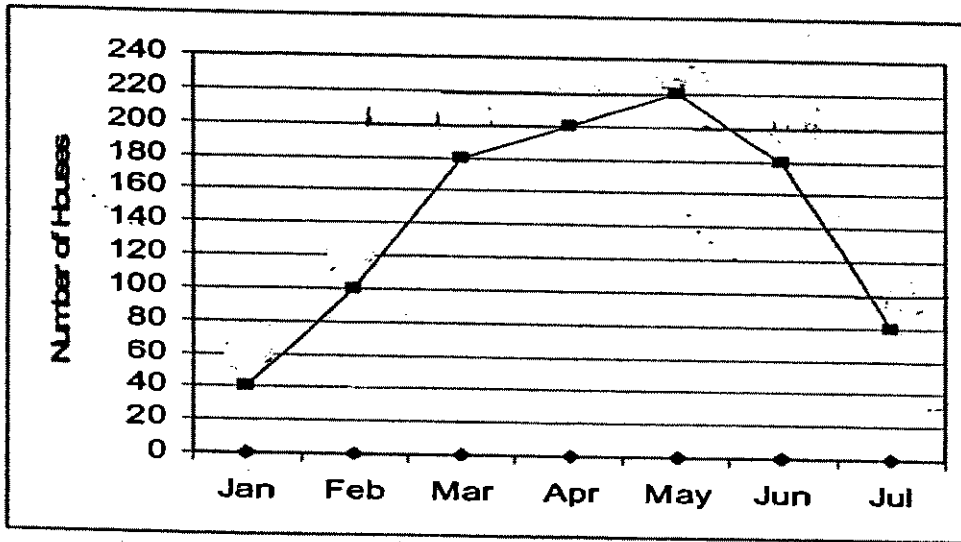
12

Sub-total:

43. Derrick had $\frac{2}{3}$ as many stickers as Benedict. After Derrick bought another 8 stickers and Benedict lost 5 stickers, Derrick now has $\frac{4}{5}$ as many stickers as Benedict. Find the number of stickers Derrick and Benedict had at first.

Ans: _____[4]

13

Sub-total: [   ]

44   Marvin bought a box of fruits. 30% of the fruits are apples and the rest oranges. He realised that half of the apples were rotten and threw them away. He then bought some oranges and the number of oranges increased by 40%. After that, he found out that there were 52 more fruits in the box. How many fruits were there in the box at first?

Ans: _____ [4]

14

Sub-total:

45   The figure is made up of three circles and two semi-circles. O is the centre of the circle. AB is 42 cm. Find the total area of the shaded part.

(Take $\pi = \dfrac{22}{7}$)
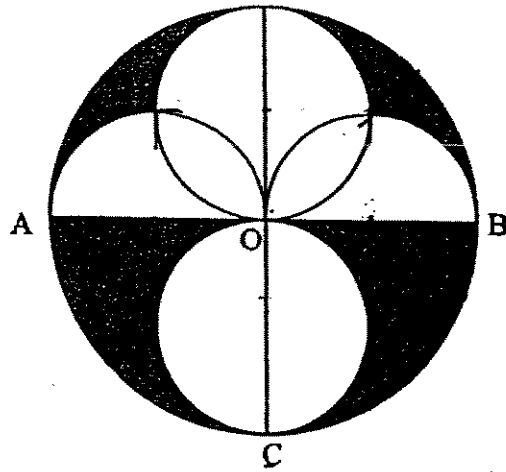
Ans:_____[4]

15

Sub-total: [   ]

46

Tap Y
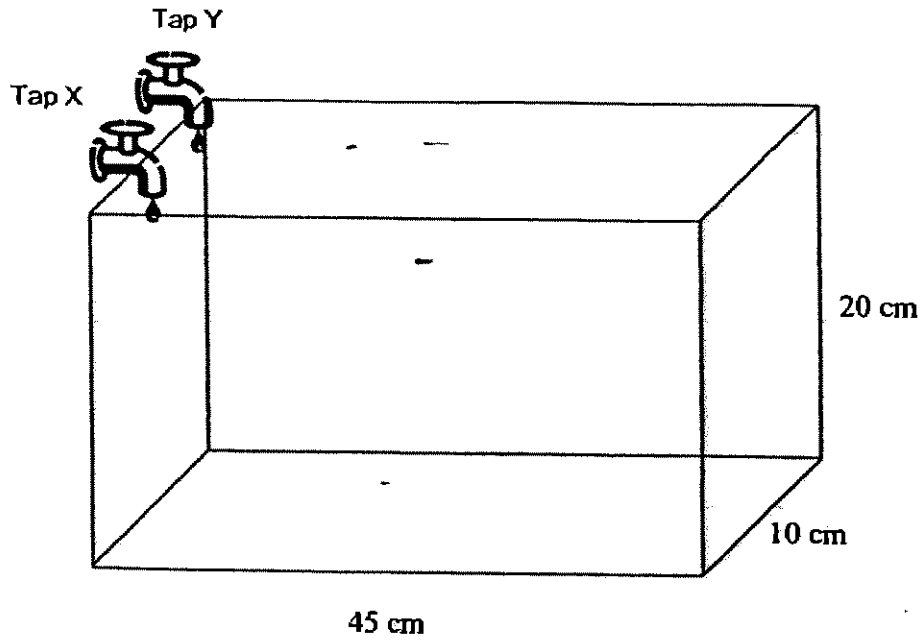
Tap X

20 cm

10 cm

45 cm

A rectangular container measuring 45 cm by 10 cm by 20 cm is empty at first. Water flows from Tap X at a rate of 1.3 litres per minute and Tap Y at a rate of 1.2 litres per minute. How long does it take to completely fill up the container if both taps are turned on at the same time? Give your answer in minutes and seconds.

Ans: _____ [4]

16

Sub-total:

47   In an auditorium, the ratio of the number of competitors to the number of non-competitors is 8 : 5. The ratio of the number of male competitors to the number of female competitors is 7 : 4. Given that $\frac{3}{5}$ of the non-competitors are males and there are 32 female competitors, how many males and females are there in the auditorium?

Ans: _____males

Ans: _____females [5]

17

Sub-total:

48   Mr Goh was travelling from Town X to Town Y. After completing $\frac{2}{7}$ of the journey, he passed by Mr Lee travelling the same direction. Mr Lee was travelling at an average speed of 60 km/h. Mr Goh reached his destination 3 hours later, while Mr Lee was still 45 km away from Town Y.

a)   Find the distance between the two towns.

b)   If Mr Lee left Town X at 11.30 a.m., what time would he arrive at Town Y?

Ans: (a) _____ [3]

(b) _____ [2]

END OF PAPER

B-18

Sub-total:
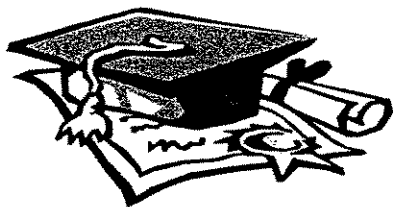
ANSWER SHEET

ACS PRIMARY SCHOOL - PRIMARY 6 MATHEMATICS 2007
PRELIMINARY EXAMINATION

1. 1	31) 36
2. 1	32) 8min
3. 2	33) $28
4. 3	34) 16 workers
5. 2	35)
6. 3	
7. 4	
8. 2	
9. 3	
10. 1	
11. 2	
12. 3	
13. 3	
14.	36) 56x3=168
15. 3	65x4=260
16. 3085	260-168=92
17. $108	She have to score 92 marks
18. $5.25	
19. 56	37) 130°-70°=60°
20. 1h40min	40°+60° =100°
21. 1kg250g	∠BEF is 100°
22. 3.35m	
23. 2/5	38) 60-45=15°
24. 15	60+15=75
25. 971	180-75=105
26. 104cm3	180-105=75
27. 84coins	180-75=105
28. 10	∠FGE is 105°
29. $9.50	
30. 180beads	

45) Area of big circle= r^2=22/7x42cmx42cm=5544cm2
42cm÷4=10.5cm
10.5cmx10.5cm=110.25cm2
Area of small circle= 22/7x10.5cmx10.5cm=346.5cm2
Area of small quardant
346.5cm2x ¼ =86.625cm2
110.25cm2-86.625cm2=23.625cm2
23.625cm2x2=47.25cm2
Overlap area
110.25cm2-47.25cm2=63cm2
346.5cm-63cm=283.5
(346.5x2+283.5)cm2=(693+283.5)cm2
=976.5cm2
5544cm2-976.5cm2=4567.5cm2

46) 45x10x20=9000
1.3+1.2=2.5
2.5+2500ml
9000÷2500=3.6
=3 6/10
=3 36/60
It takes 3 mins 36 seconds.

47) 5-3=2
7x8=56
56+32=88
8 units→88
1unit→88÷8=11
5units→11x5=55
Male→11x3+56
=33+56=89
Female→11x2+32
=22+32=54
There are 89 males and 54 female.

48) a) 60x3=180
180+45=225
7-2=5
5units→225
1unit→225÷5=45
7units→45x7=315
The distance is 315km

b) 11h30min+5h min=16h45min
Mr Lee arrived at
4.45p.m.

39) a) $\dfrac{(264-k)}{4}$

b) 204-8=256
256÷4=64
64x3=192
192+8=$200

40) 10x30=300
750-300=450
450÷5=90
She collected 90
Stamps in January

41) $9.70+$1.50=$11.20
7 units→$11.20
1 unit→ $11.20÷7=$1.60
Colin has $1.60

42) a) 180+200+220+180=780
780÷4=195
The average number is
195 houses.
b) 40+100+180+180+200+220+80
=1000
200/1000x100/1=20%
The percentage is 20%

43) 150 sticker

44) 70/100÷40/100x70%=28%
30%÷2=15%
28%-15%=13%
1%-->52/13
100%-->52/13x100=400

AI TONG SCHOOL

2007
SEMESTRAL ASSESSMENT 1
PRIMARY 6

MATHEMATICS

DURATION : 2 h 15 min

DATE   : 11 May 2007

INSTRUCTIONS

Do not open the booklet until you are told to do so.
Follow all instructions.
Answer all questions.

Name   : _____ (   )

Class   : Primary 6_____   Marks: /100
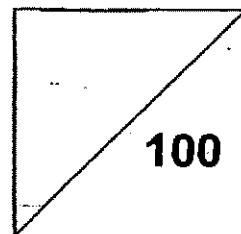
Parent's Signature   : _____

Date   : _____

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.
For each question, four options are given. One of them is the correct answer.
Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer
Sheet.   (20 marks)

1   What is the missing number in the box?

     $26\ 308 = 20\ 000 + 6000 +$ $\boxed{?}$ $+ 8$

     (1)   3000
     (2)   300
     (3)   3
     (4)   30

2   Adrian ate 12 cookies and had 48 left. What fraction of the cookies had he left?

     (1) $\dfrac{1}{5}$

     (2) $\dfrac{1}{4}$

     (3) $\dfrac{3}{4}$

     (4) $\dfrac{4}{5}$

3    $5 + \dfrac{3}{50}$ is the same as _____.

     (1)   5.03
     (2)   5.06
     (3)   5.3
     (4)   5.6

- 1 -

4   How many of the following nets can be folded to form a pyramid?
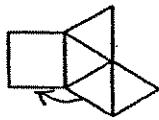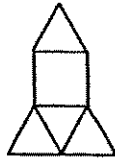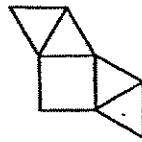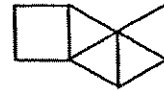
A   B   C   D

(1)   1
(2)   2
(3)   3
(4)   4

5   A file costs twice as much as a pen. The average cost of a file and a pen is $3.00. How much does a file cost?

(1) $2.00
(2) $3.00
(3) $4.00
(4) $5.00

6   When 1200 is added to a number, the answer is the same as multiplying the number by 25. What is the number?

(1)   25
(2)   50
(3)   1225
(4)   1250

7   The ratio of Fatimah's stickers is $3\frac{1}{2}$ times Devi's stickers. What is the ratio of Fatimah's stickers to the total number of stickers?

(1)   2 : 7
(2)   7 : 2
(3)   7 : 9
(4)   9 : 2

- 2 -

8   The price of a bag is increased from $300 to $375. Find the percentage increase.

      (1)   20%
      (2)   25%
      (3)   80%
      (4)   125%

9   Simplify $8 + 5a - 3 - 2a$.

      (1) $3a + 5$
      (2) $3a - 5$
      (3) $3a + 11$
      (4) $3a - 11$

10   How many seconds are there in $1\frac{1}{4}$ hours?

      (1)   75 s
      (2)   750 s
      (3)   450 s
      (4)   4500 s

11   Mr Lee took $\frac{1}{3}$ h to travel 28 km from Town X to Town Y. He then increased his

      speed by 6 km/h and drove from Town Y to Town Z for $\frac{1}{2}$ h. What is the distance

      between Town Y and Town Z?

      (1)   34 km
      (2)   45 km
      (3)   60 km
      (4)   180 km

12   Mr Ong drove at an average speed of 60 km/h for $1\frac{1}{2}$ h. He then drove another

      40 km in $\frac{1}{2}$ h. What was his average speed for the whole journey?

      (1)   50 km/h
      (2)   65 km/h
      (3)   70 km/h
      (4)   85 km/h

- 3 -

13   In the diagram below, PQ : QS = 3 : 7 and PR : RS = 3 : 5.

What is the fraction $\dfrac{QR}{PS}$?

P   Q   R   S
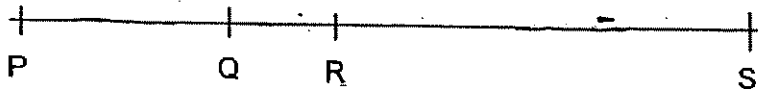
(1) $\dfrac{1}{4}$

(2) $\dfrac{1}{5}$

(3) $\dfrac{3}{40}$

(4) $\dfrac{9}{45}$

14   Ravi has 25% more cards than Amy. If Amy gives 25 cards to Ravi, she will have half of what Ravi has. How many cards does Amy have at first?

(1)   50
(2)   100
(3)   150
(4)   200

15   The figure below, not drawn to scale, is made up of a semicircle and 2 equal quarter circles. What is the perimeter of the figure?
(Give your answer in terms of π.)

12 cm

(1)   (6π + 6) cm
(2)   (12π + 12) cm
(3)   24π cm
(4)   36π cm

- 4 -
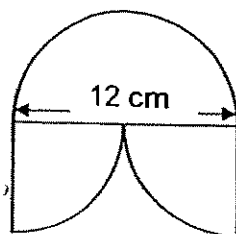
Name: _____ (   )

Class: Primary 6_____ .

Questions 16 to 25 carry 1 mark each. Write your answers in the spaces provided.
For questions which require units, give your answers in the units stated.   (10 marks)

16   Correct 53 495 to the nearest ten thousands.

                                                    Ans: _____

17   A stallholder earns $1.75 for every 5 cups of tea sold. How much will he earn for
        20 cups of tea sold?

                                                    Ans: $_____

18   Joseph had 60 picture cards. He gave away $\frac{2}{5}$ of them to Shanti and 15 to
        Wenbin. How many picture cards had he left?

                                                    Ans: _____

19   Triangle XYZ is an isosceles triangle. If $\angle YXZ$ is 52°, what is $\angle XZY$? (The figure is not drawn to scale.)

Ans:_____°

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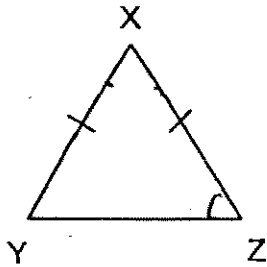
20   A car can travel 32 km on 3 litres of petrol. How far can it travel on 9 litres of petrol?

Ans:_____km

---

21 -   15% of a sum of money is $45. What is the sum of money?

Ans: $_____

---

22   The ratio of the length to the breadth of a rectangle is 2 : 1. If the length is 12 cm, find its perimeter.

Ans:_____cm

-6-

23   Find the value of $\dfrac{4p+8}{6}$ when $p = 4$.

Ans: _____

24   The figure below is made up of a square and a triangle. The triangle has an area of 36 cm^2. Find the area of the square.
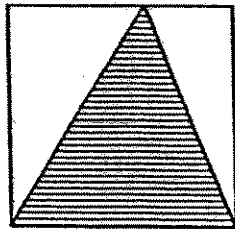
Ans: _____ cm^2

25   Find the length of the curve which is made up of 3 equal semicircles.
      (Take $\pi = \dfrac{22}{7}$)
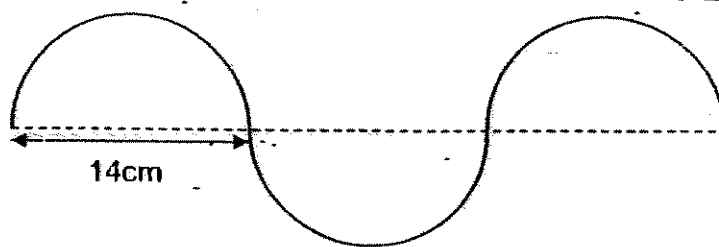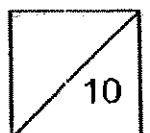
14cm

Ans: _____ cm

-7-

[/10]

Questions **26 to 35** carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.   **(20 marks)**

26   Study the pattern as shown below and write down the value of *a*.
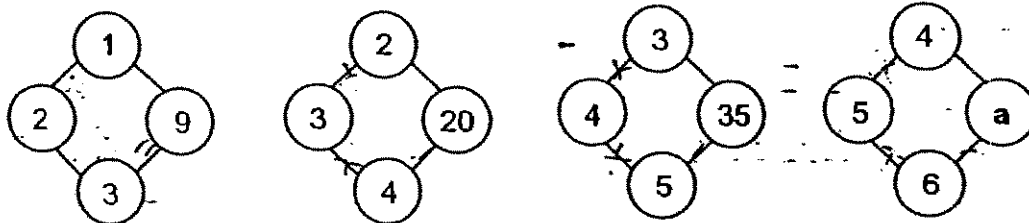
Ans: _____

27
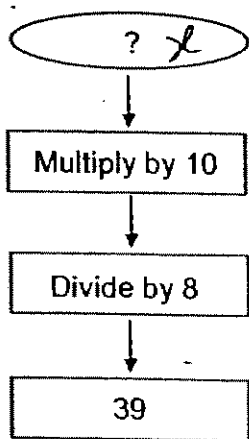
What is the number you started with?

Ans: _____
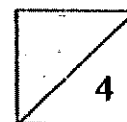
28   A bag contains some red and yellow balls. $\frac{3}{5}$ of the balls are red. There are 16 more red balls than yellow balls. How many balls are there?

Ans: _____

---

29   The table below shows the number of road accidents in a city from January to May.

Month	Jan	Feb	Mar	Apr	May
No. of road accidents	20	16	10	14	18

Express the number of accidents in May as a fraction of the total number of road accidents in the 5 months. Give your answer in the simplest form.

Ans: _____

---

30   The triangle PQR shown below is not drawn to scale. PR = 12 cm, QT = 5 cm and PQ = 7 cm. Find the area of the triangle PQR.

Ans: _____cm^2

- 9 -

6
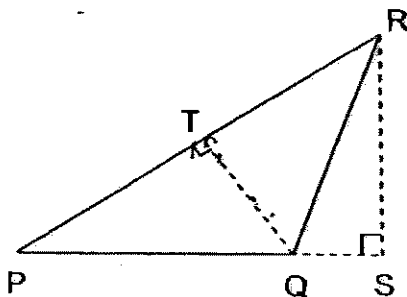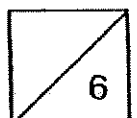
31   The average of three numbers is 2. If one of the numbers is changed to 4, the average of the three numbers now is 3. What is the original number that has been changed ?

Ans: _____

32   Miss Wong types 168 words in 4 minutes. At this rate, how many words can she type in $\frac{3}{5}$ h?

Ans: _____

33   There are 25 girls and 20 boys in the Mathematics Explorers Club. How many per cent more girls than boys are there in the club?

Ans: _____ %

- 10 -

6
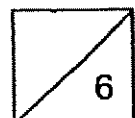
34   Leon had $y in his wallet. He bought a shirt for $22 and spent the rest of his money on 3 movie tickets. Find the price of 1 movie ticket in terms of y.

Ans: $_____

---

35   The length of square B is four times the length of square A. What is the ratio of the area of square B to the area of square A?
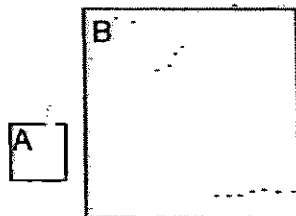
Ans: _____
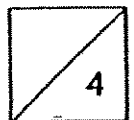
4

– 11 –

For questions 36 to 48, show your working clearly in the space provided for each question and write your answers in the spaces provided.
The number of marks available is shown in brackets [ ] at the end of each question or part-question.   (50 marks)

36   The graph below shows the number of visitors to the Singapore Zoological Gardens in a certain week.
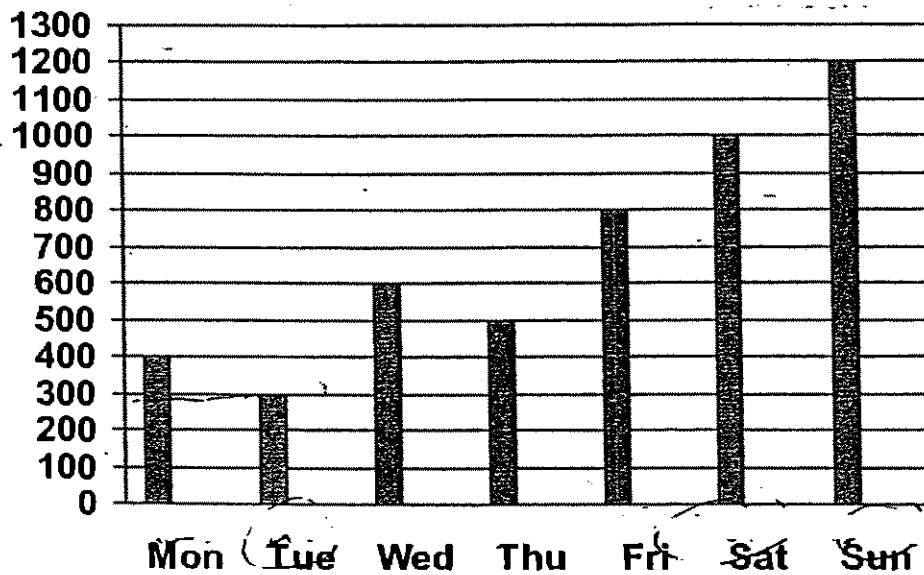
(a)   Find the total number of visitors on Tuesday and Saturday.

(b)   Express the number of visitors on Wednesday as a percentage of the total number of visitors for the week.

Ans: (a) _____[1]

       (b) _____[2]

- 12 -
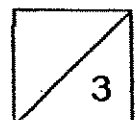
37   Deming had $ 100 more than Ali at first. After Deming spent $ 120 and Ali received $ 200, Ali had 3 times as much money as Deming. How much did Deming have at first?

Ans:_____ [3]

---

38   The total mass of three boxes of books X, Y and Z is 16 kg. X is 0.7 kg heavier than Y and 0.25 kg heavier than Z.

   (a)   How much heavier is Z than Y?

   (b)   What is Y's mass?

Ans: (a) _____ [1]

        (b) _____ [2]

6

- 13 -
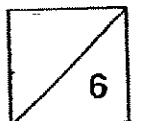
39 A rectangle is folded diagonally as shown in Figure B. As a result, Figure B is $\frac{5}{8}$ of the area of Figure A. If the area of the shaded triangle is 12 cm^2, find the area of the original rectangle.

Figure A   **Figure B**
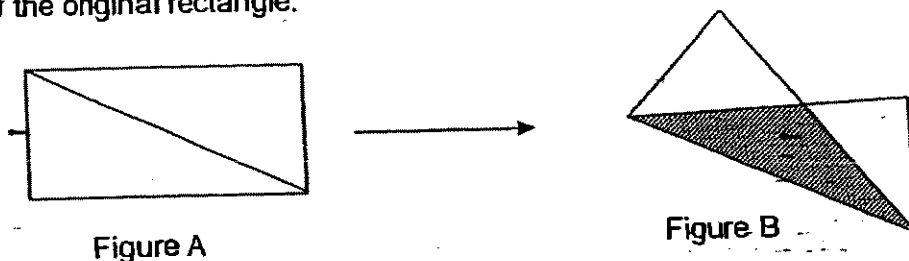
Ans: _____ [3]

40 Two candles of equal length are lit at the same time. Candle A takes 10 hours to burn down while Candle B takes 5 hours. Candle A will be exactly three times as long as Candle B after how many hours?

Ans: _____ [3]

6

- 14 -
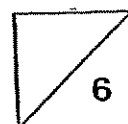
41   Mrs Lee bought some fruits. $\frac{1}{3}$ of the fruits were oranges, $\frac{1}{9}$ of them were apples and the rest were pears. The prices of the fruits were as shown below:

Oranges	40 ¢ each
Apples	30¢ each
Pears	60¢ each

Mrs Lee spent $13.50 on the oranges and apples. How much did she spend on the pears?

Ans: _____[4]

- 15 -

4
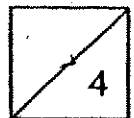
42   In the diagram below, not drawn to scale, ABCD is a parallelogram. EDC and
     ADF are straight lines. AE = AD. Find

   (a)   ∠ABC

   (b)   ∠DCF
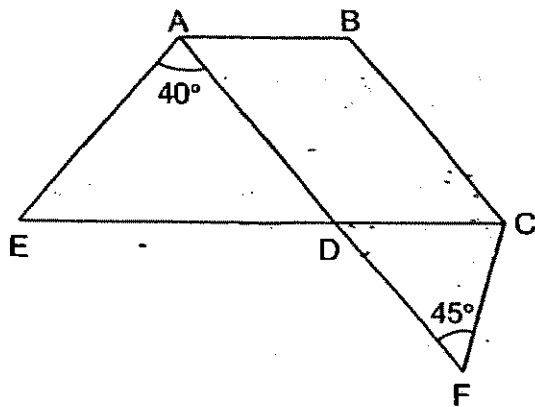
Ans: (a) _____[2]

   (b) _____[2]
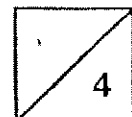
43   Packets of assorted candies were sold in 2 different sizes – standard and large. The large packet contained twice as many candies as the standard packet. In the standard packet, the ratio of the number of coconut candies to the number of strawberry candies was 4 : 5. In the large packet, the ratio of the number of coconut candies to the number of strawberry candies to the number of toffee candies was 1 : 2 : 3.

A family bought 1 standard and 1 large packet.

(a)   What was the ratio of the number of coconut candies to the number of strawberry candies to the number of toffee candies?

(b)   The family ate 21 candies. As a result, the ratio of the number of coconut candies to the number of strawberry candies to the number of toffee candies became 2 : 3 : 3. How many candies were left?
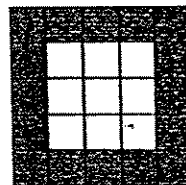
Ans: (a) _____ [2]

(b) _____ [2]

- 17 -
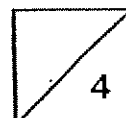
44   Look at the patterns below. They are made up of shaded and plain tiles.
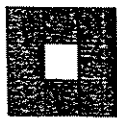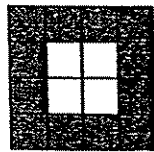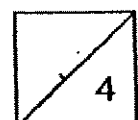
Pattern 1   Pattern 2   Pattern 3

(a)   Complete Pattern 4 in the table.

Pattern	Number of shaded tiles	Number of plain tiles
1	8	1
2	12	4
3	16	9
4		

(b)   What is the total number of shaded and plain tiles in Pattern 9?

Ans: (a) _____ , _____ [2]

(b)_____ [2]

- 18 -

45   Edward, Felix and George took part in a 60-metre race. When Edward crossed the finish line, he was ahead of Felix by 10 m and ahead of George by 20 m. Felix and George continued to race to the finish line without changing their speed. How far was George from the finish line when Felix completed the race?

Ans: _____[4]

- 19 -
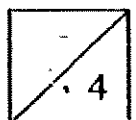
46   Last Monday morning Edward walked from home to school. For the first 2 minutes, he was walking at an average speed of 40 m/min. When he realised that he was going to be late by 3 minutes, he quickly increased his speed by 10 m/min. As a result, he was early by 1 minute. Find the distance between his — home and school.
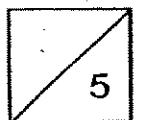
Ans: _____ [5]

5

- 20 -
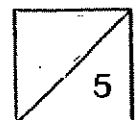
47   The figure shows two squares of side 8 cm and 14 cm respectively. Find the area
      of the shaded part. (Take $\pi = \frac{22}{7}$)
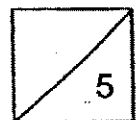

14 cm

8 cm

Ans: _____[5]

- 21 -
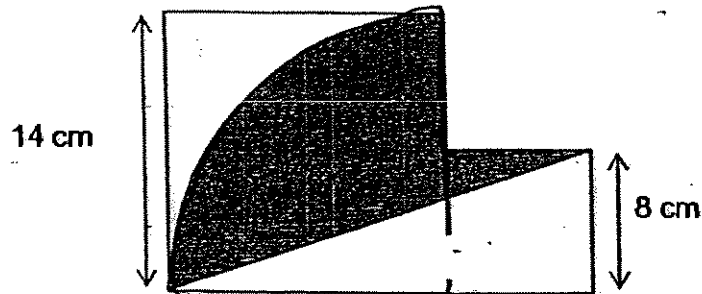
48   Ann, Ian and Kelvin went shopping together. They brought a total of $580 with
      them. Ann spent 20% of her money, Ian spent $30 and Kelvin spent twice as
      much as Ann. At the end, they had $370 left. How much money did Ian and
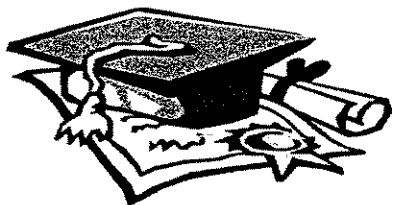   Kelvin have together at first?

Ans: _____[5]

5

~~END OF PAPER~~

Please check your work carefully.

- 22 -

ANSWER SHEET

AI TONG PRIMARY SCHOOL – PRIMARY 6 MATHEMATICS 2007
SEMESTRAL ASSESSMENT (1)

1. 2
2. 4
3. 2
4. 4
5. 3
6. 2
7. 3
8. 2
9. 1
10. 4
11. 2
12. 2
13. 3
14. 2
15. 2
16. 50000
17. $7
18. 21
19. 64°
20. 96km
21. $300
22. 36cm
23. 4
24. 72cm2
25. 66cm
26. 54
27. 31.2
28. 80
29. 3/13
30. 30cm2

31) 1
32) 1512
33) 25%
34) $\frac{\$(y-22)}{3}$

35) 16:1
36) a) 300+1000=1300
    b) 600/4800x100=12.5%

37) $20-$100=$120
    $200+$20=$220→2u
    $220÷2x3=$330→Ali
    $330-$200+$100=$230

38) a) 0.7kg-0.25kg=0.45kg
    b) (16kg-0.7kg-0.45kg)÷3
       =14.85kg÷3=4.95kg

39) A-B=12cm2
    1-5/8=3/8→12cm2
    12cm2÷3x8=32cm2

40) 4h

41) $13.50÷$1.50=$9
    9x5=45
    $45x0.60=$27

42)a)$(180° -40°) \div 2 = 70°$ $(\angle DEA)$

$180° - 70° = 110°$

$110° -40° = 70°$

$(360° -70° \times 2) \div 2 = 110°$

b)$180° -70° -45° =65°$

43)a)$7:11:9$

b)168

44)a)$20,16$

b)121

45)$G:F:E = 4:5:6$

$60 \div 4 = 15$

$60 \div 5 = 12$

$60 \div 6 = 10$

$G \rightarrow 4m/s$

$15 \div 12 = 3$

$3 \times 4 = 12m$

46)$40m/min : 50m/min$

$=50:40=5:4$

$1u \rightarrow 3+1=4min$

Time taken at 40m/min

$=5 \times 4+2=22min$

Dist$\rightarrow 40 \times 22=880m$

47)$14+8=22$

$22 \times 8 \times ½ =88$

$22/7 \times 14 \times 14 \times ¼ =154$

$14 \times 14-154=42$

$196+8 \times 8=260$

$260-88-42=130cm2$

48)$\$580-\$30=\$550$

$\$550-\$370=\$180$

$\$180 \div 3=\$60 \rightarrow (S)$

$\$60 \times 2=\$120 \rightarrow K$ (s)

$\$60 \times 5=\$300 \rightarrow A$

$\$580-\$300=\$280$

新加坡福建会馆属下五校小六统一考试

道南·爱同·崇福·南侨·光华

SINGAPORE HOKKIEN HUAY KUAN
5-SCHOOL COMBINED PRIMARY 6 PRELIMINARY EXAMINATION
TAO NAN · AI TONG · CHONGFU · NAN CHIAU · KONG HWA

2007
数学 MATHEMATICS
BOOKLET A

Total Time For Booklets A and B: 2 hour 15 minutes

INSTRUCTIONS TO CANDIDATES

√ Do not open this booklet until you are told to do so.
√ Follow all instructions carefully.
√ Answer all questions.

This booklet consists of 8 printed pages.

School : _____

Name : _____ ( )

Class : _____

Date : 28 August 2007

TOTAL	/20

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.
For each question, four options are given. One of them is the correct answer.
Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer
Sheet (OAS).   [20 marks]
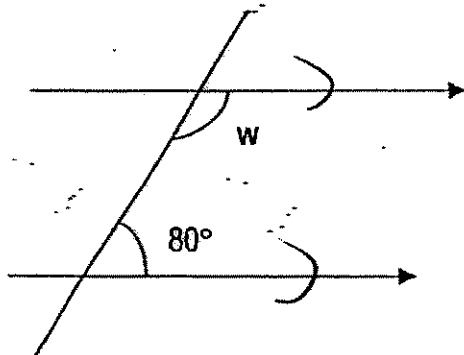
1)   30 min = _____ s

    (1) 180

    (2) 300

    (3) 1800

    (4) 3000

2)

    ∠w is _____.

    (1) 20°

    (2) 80°

    (3) 100°

    (4) 180°

1

3)   Mrs Tan bought 3 ducks weighing 1.3 kg, 1.3 kg and 2.2 kg.
     What was the average mass of the ducks?

     (1)   1.3 kg

     (2)   1.6 kg

     (3)   2.4 kg

     (4)   4.8 kg

4)   There are $\frac{2}{5}$ as many female workers as male workers in a factory.
     The ratio of the number of male workers to the number of female workers
     in the factory is _____.

     (1)   5 : 2

     (2)   2 : 5

     (3)   3 : 5

     (4)   5 : 3

5)   Paul had $2a. He spent $2 on a toy. How much money had he left?

     (1) $a

     (2) $4a

     (3) $(a – 1)

     (4) $(2a – 2)

2

6)   Add 44.2 and 0.81. The digit in the tenths place is _____.

   (1)   1

   (2)   0

   (3)   5

   (4)   4

7)   Which of the following has the largest value?

   (1) $\frac{7}{8}$

   (2) $\frac{9}{10}$
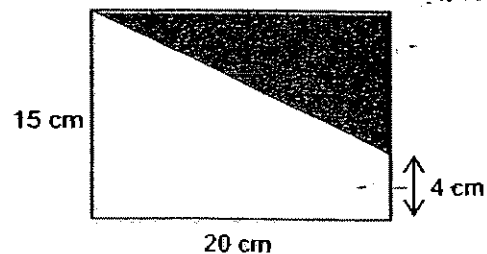
   (3) $\frac{11}{12}$

   (4) $\frac{13}{14}$

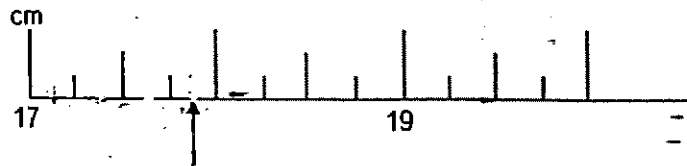8)   In the rectangle below, the area of the shaded triangle is _____ cm².
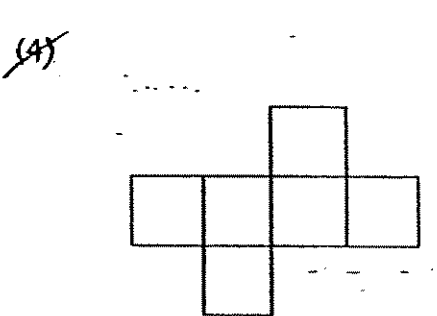
   (1)   110

   (2)   150

   (3)   220

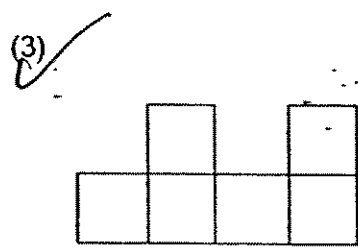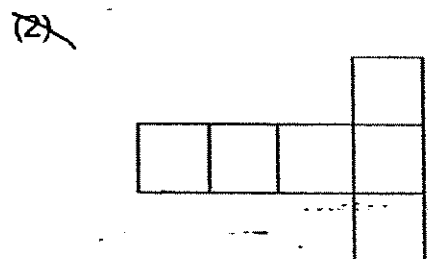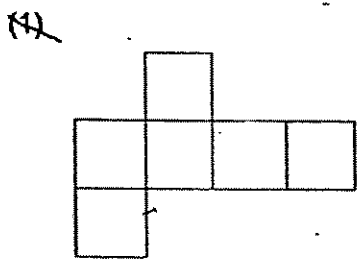   (4)   240

15 cm

4 cm

20 cm

3

9)   The figure below shows part of a measuring tape.
     What is the best estimate of the reading shown by the arrow?

cm

17   19

(1)   18.5 cm

(2)   18.3 cm

(3)   17.8 cm

(4)   17.5 cm

10)   Which of the following nets when folded does **not** form a cube?

(1)   (2)

(3)   (4)

4

11) $78 \times 62 + 10 \times 62 = \boxed{} \times 62 - 62$

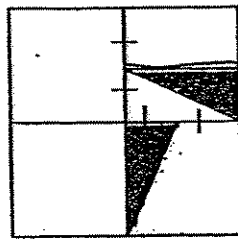The missing number in the box is _____.

(1) 72

(2) 87

(3) 88

(4) 89

12) The figure is made up of 4 squares. What fraction of the figure is shaded?
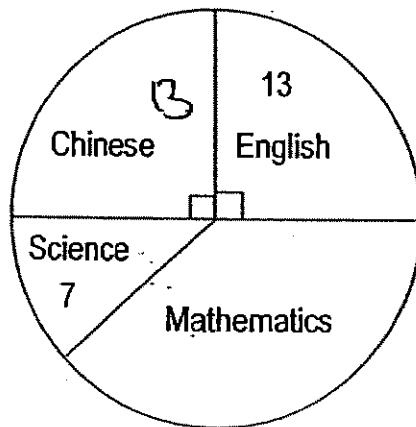

(1) $\dfrac{1}{7}$

(2) $\dfrac{1}{8}$

(3) $\dfrac{6}{7}$

(4) $\dfrac{7}{8}$

5

13)   Siew Lee paid $56 for 4 identical belts and 6 identical hair clips.
      Each belt cost $4 more than each hair clip. Find the cost of one hair clip.

      (1) $3.00

      (2) $4.00

      (3) $5.60
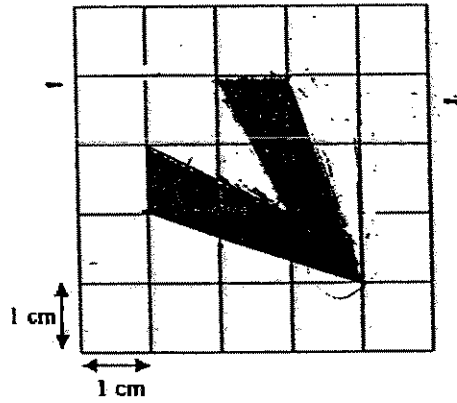
      (4) $6.60

14)   The pie chart below shows the favourite subjects of pupils in a class.

      Mathematics is the favourite subject of _____ pupils.

      (1)   19

      (2)   20

      (3)   26

      (4)   33

6

15)   What is the area of the shaded figure?

1 cm

1 cm

(1)   6 cm²

(2)   5 cm²

(3)   3 cm²

(4)   4 cm²

7

新加坡福建会馆属下五校小六统一考试

道南・爱同・崇福・南侨・光华

SINGAPORE HOKKIEN HUAY KUAN
5-SCHOOL COMBINED PRIMARY 6 PRELIMINARY EXAMINATION
TAO NAN・AI TONG・CHONGFU・NAN CHIAU・KONG HWA

2007

数学 MATHEMATICS
BOOKLET B

Total Time For Booklets A and B: 2 hour 15 minutes

INSTRUCTIONS TO CANDIDATES

√ Do not open this booklet until you are told to do so.
√ Follow all instructions carefully.
√ Answer all questions.

This booklet consists of 20 printed pages.

School : _____

Name : _____ ( )

Class : _____

Date : 28 August 2007

| TOTAL | 80 |

Questions 16 to 25 carry 1 mark each. Write your answers in the spaces provided.
For questions which require units, give your answers in the units stated.   [10 marks]

16)   Find the value of $50 \div 5 \times 2$.

Ans: _____

17)   Express $3\frac{1}{4}$ km in metres.

Ans: _____ m

18)   Find the value of $\frac{1}{2} \div 2$.

Ans: _____

8

19) A carton of eggs cost $2.50. Mrs Yong paid $10 for some cartons of eggs.
     How many cartons of eggs did she buy?

Ans: _____

20) Joseph mixed 1 litre of orange syrup with 3 litres of water. He poured the mixture
     equally into 5 bottles. Each bottle contained _____ ml of mixture

Ans: _____ ml

21) Mrs Lee gave a Mathematics test to her class of 20 pupils.
     She recorded the number of questions they answered correctly in the table below.

Number of questions answered correctly	Number of pupils
8	10
6	10

Find the average number of questions the pupils answered correctly.
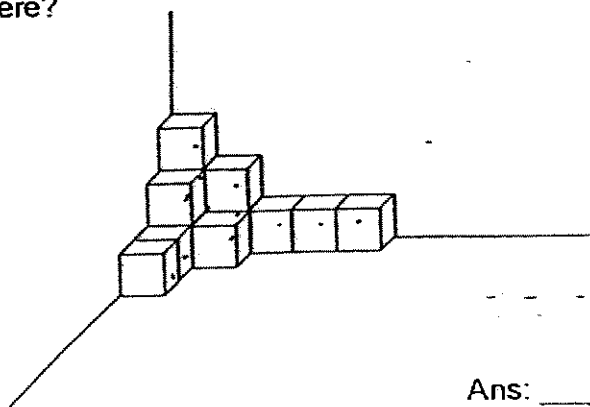
Ans: _____

9

22)   The line graph below shows the amount of water consumed by
       Rajah's family from January to June.
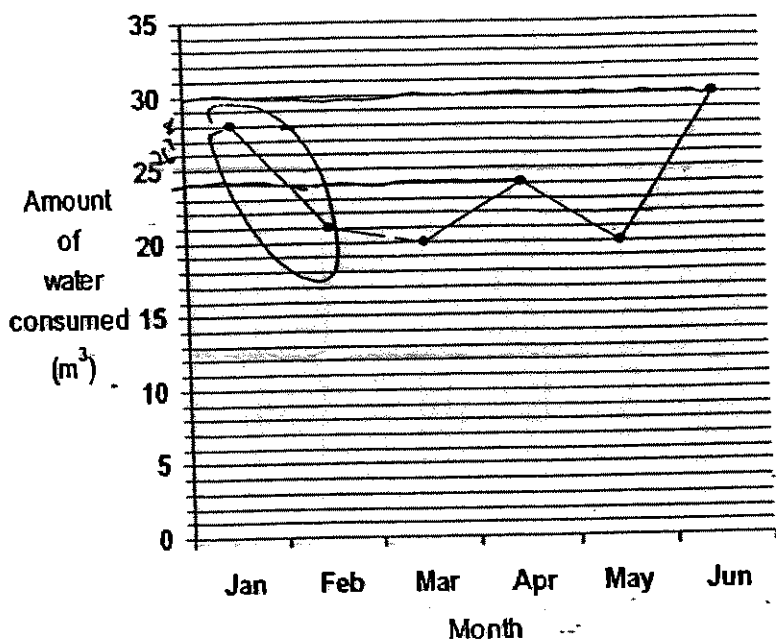
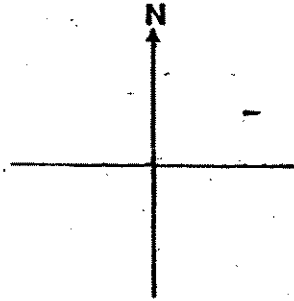What was the largest decrease in water consumption?

Ans: _____ m³

23)   Cubes of the same size are stacked in the corner of a box as shown.
       How many cubes are there?

Ans: _____

10

24) John is facing South now.
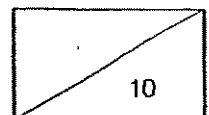Which direction will he face if he makes a 225° anti-clockwise turn?

N

Ans:_____

25) Tom jogged 2 km in 10 minutes. What was his average speed in km/h?

Ans:_____km/h

Total mark for questions
16 to 25   10

11

Questions 26 to 35 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.   [20 marks]

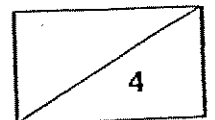26)   What is the next number in this sequence?

2, 6, 12, 20, 30, _____ , 56

Ans: _____

27)   The figure is made up of 4 identical circles of radius 7 cm. Find the shaded area.
      (Take $\pi = \frac{22}{7}$)

Ans: _____ cm^2

4
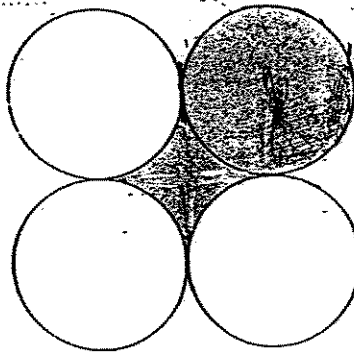
12

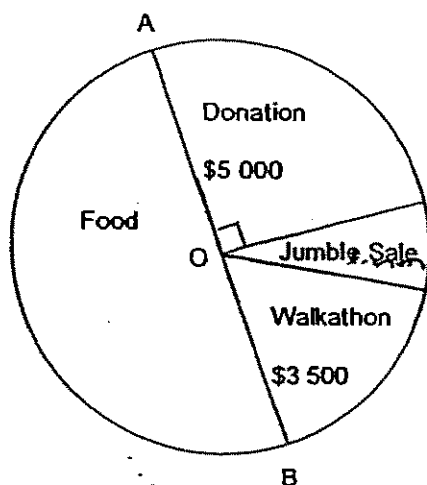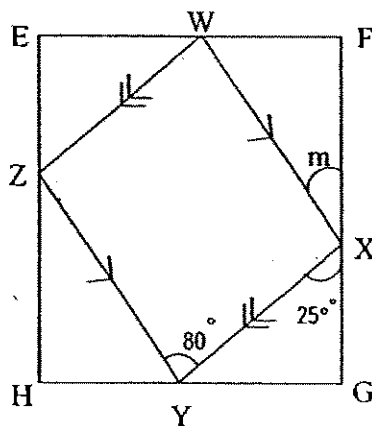**28)**   <u>Types of Activities in a Fund-raising Project</u>

In the pie chart above, half of the money collected was from the sales of food.
What percentage of the amount collected was from the jumble sale?

Ans: _____ %

---

29)   In the following figure, not drawn to scale, EFGH is a rectangle and WXYZ is a
parallelogram. Find ∠m .

Ans: _____ °

---
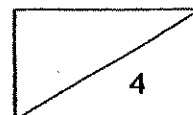
30)   The square below consists of 16 identical triangles. Shade 2 more triangles to complete the figure which has the dotted lines AB and CD as lines of symmetry.

---
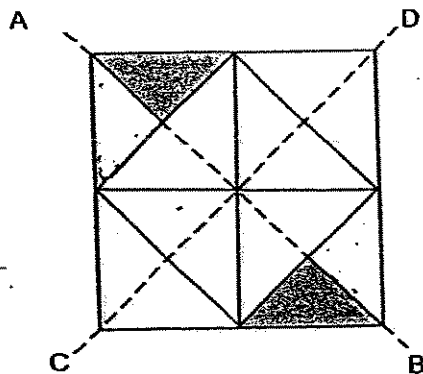
31)   The figure below is not drawn to scale. ABCD is a parallelogram and DFC is an isosceles triangle. DEF is a straight line. Find $\angle DFC$.

Ans: _____

4

14
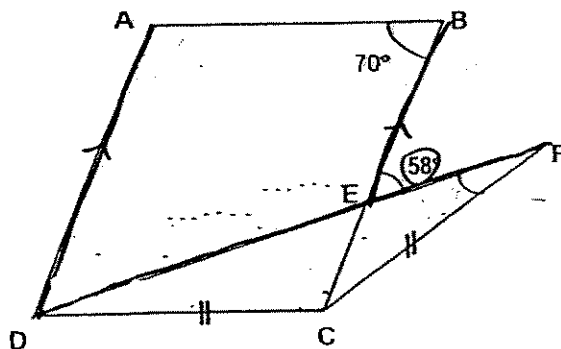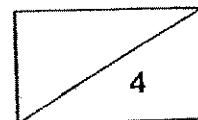
32) How many more squares should be shaded such that the ratio of the number of shaded squares to the number of unshaded squares is 2 : 3 ?
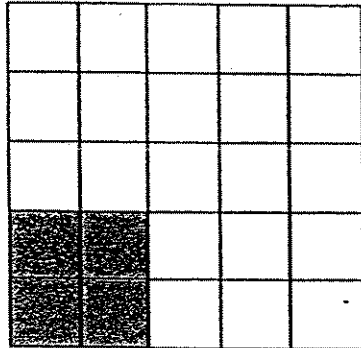
Ans: _____

33) A rectangle is 10 cm long and 8 cm wide. Its area is decreased by 20% such that the new figure is a square. What is the area of this square?

Ans: _____ cm²

4

15
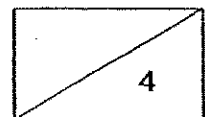
34) When Ravin was 12 years old, his father was 42 years old. His father is twice as old as he is now. How old is his father now?

Ans: _____ years

35) In the triangle ADE below, AD is 6 cm. AB = BC = CD. Find the shaded area.
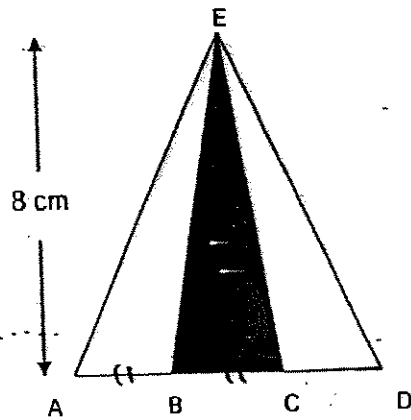
Ans: _____ cm²
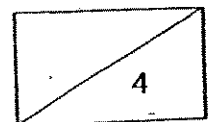
16

For questions 36 to 48, show your working clearly in the space provided for each question and write your answers in the spaces provided. The number of marks available is shown in the brackets [   ] at the end of each question or part-question. [50 marks]

---

36) The entrance fee to an amusement park was $4.50 for an adult and $2.50 for a child. Mr Lee took some children to the park and paid a total of $19.50 as entrance fee. How many children did he take to the park?

Ans: _____[3]

---

37) The rectangle is divided into 4 parts. Each part has a different area. Find the area of X.

8 cm²	10 cm²
X	15 cm²

Ans: _____ [3]

6

---
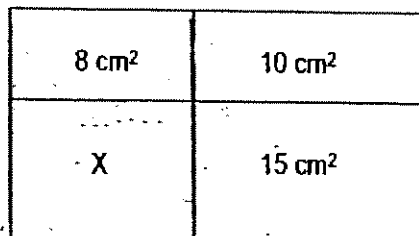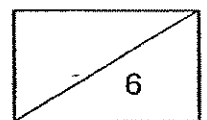
38)   The graph below shows the number of patients who visited a clinic during a certain week.
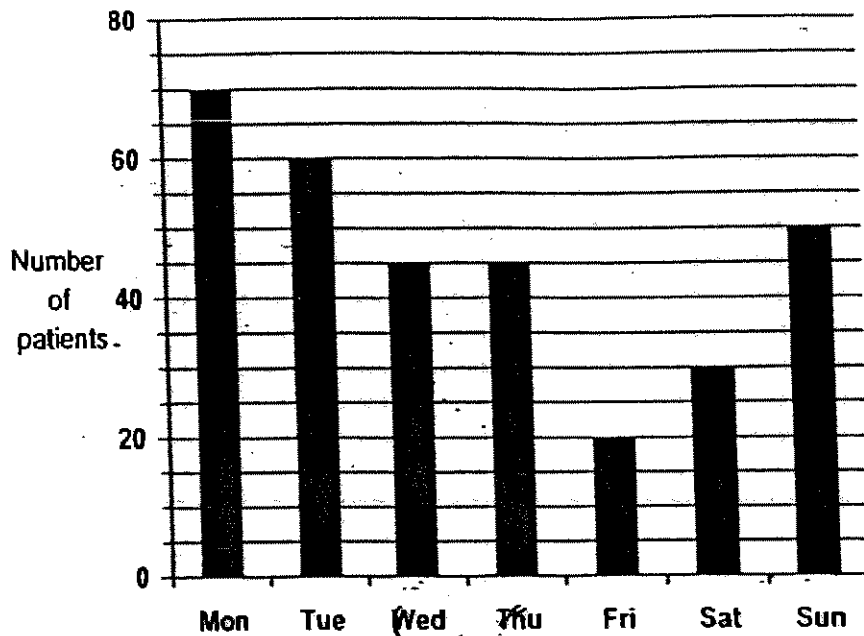
(a)   Find the total number of patients who visited the clinic on Wednesday and Thursday.

(b)   There were 40% fewer patients on Saturday than on _____.

Ans: (a) _____[1]

(b) _____[2]

3
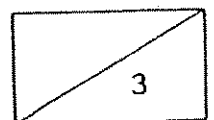
39)   (a) Shade the unit shape in this tessellation. [1]
       (b) Extend this tessellation with two more unit shapes. [2]
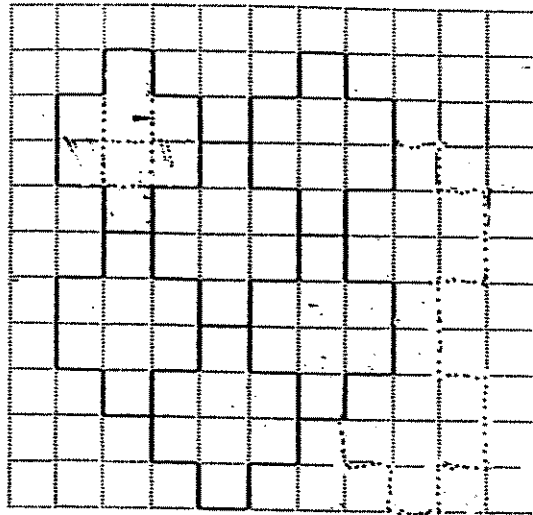
40)   A bottle of cooking oil weighs 2 kg. A hawker uses 8 such bottles in 4 days. If he uses the same amount of oil every day, how many 5-kg tins of cooking oil will he use in 10 days?

Ans: _____ [3]

6

19
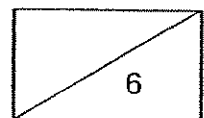
41)   Ali had y stamps. His father gave him 20 more stamps. He then shared all his stamps equally with his 2 brothers.

(a) How many stamps did each boy get in terms of y ?

(b) If $y = 28$, how many stamps did each boy get?

Ans: (a) _____[1]

(b) _____[2]

42)   Mrs Lim bought a total of 120 apples and oranges in the ratio of $3 : 5$. After she gave away an equal number of each type of fruits, the ratio of the number of apples to the number of oranges left is $3 : 8$. How many apples does she have now?

Ans: _____[4]

7

20
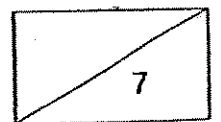
43) The figure below is made up of a semi-circle and a rectangle.
     Find the area of the unshaded region. (Take $\pi = \frac{22}{7}$)

28 cm
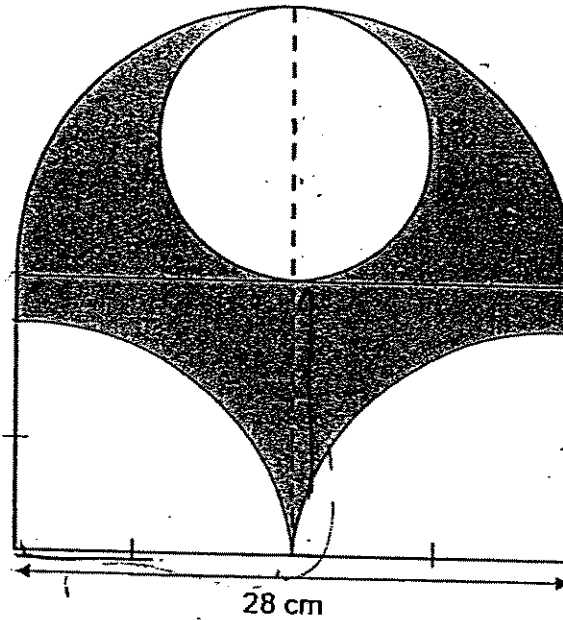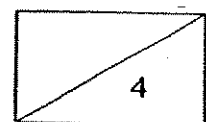
Ans: _____ [4]

44) Cynthia has 32 English and Chinese books. $\frac{4}{5}$ of the English books and $\frac{3}{4}$ of the Chinese books are fiction books. She has a total of 25 fiction books. How many English fiction books are there?

Ans: _____ [4]

22
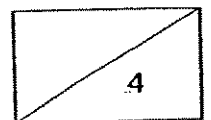
45) An empty tank was filled with water from two taps. Tap A could fill the tank completely in 2 hours and Tap B could fill it completely in 6 hours. Tap A was turned on first and Tap B was turned on 20 minutes later.

(a) What fraction of the tank was filled with water after 20 minutes?

(b) How long did it take to fill the rest of the tank completely with water?

Ans: (a) _____[1]

(b) _____[4]

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┌──────────┐
│        ╱ │
│      ╱   │
│    ╱   5 │
└──────────┘
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23
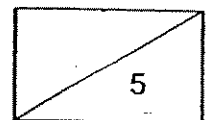
46) At 8.30 a.m., Tom drove from Town P to Town Q at an average speed of 80 km/h. After driving $\frac{2}{5}$ of the journey for 4 hours, he passed Paul who was travelling along the same road in the opposite direction. Paul was travelling at a speed which was 20 km/h slower than Tom. At what time did Paul leave Town Q?

Ans: _____ [5]

5
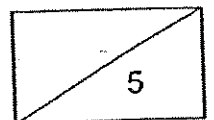
47)   Ahmad formed the following patterns using toothpicks
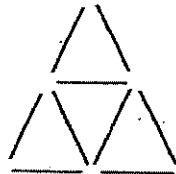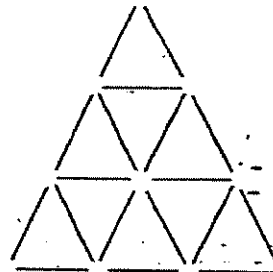
Pattern 1   Pattern 2   Pattern 3

(a)   How many toothpicks would Ahmad need to form Pattern 4 ?

(b)   If the last pattern formed by Ahmad had 165 toothpicks, what was the pattern number?

Ans: (a) _____ [2]

(b) Pattern_____ [3]

25
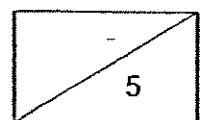
48) Siti had some red and blue marbles. 80% of the marbles were red. After she bought another 63 red marbles and 46 blue marbles, 75% of the marbles were red. Find the total number of marbles she had at first.

Ans:_____ [5]

End-of-Paper

26
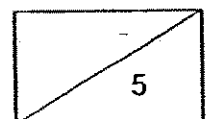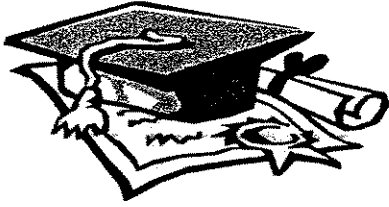
ANSWER SHEET

HOKKIEN PRIMARY SCHOOL – PRIMARY 6 MATHEMATICS 2007
PRELIMINARY EXAMINATION

1.	3	31) 12°
2.	3	32) 6
3.	2	33) 64cm2
4.	1	34) 60years
5.	4	35) 8cm2
6.	2	36) 6 children
7.	4	37) 12cm2
8.	1	38) a) 90
9.	3	.b) Sunday
10.	3	39) a) b)
11.	4	
12.	2	
13.	2	
14.	1	
15.	4	
16.	20	
17.	3250m	
18.	¼	
19.	4	
20.	800ml	
21.	7	
22.	7m3	
23.	13 cubes	
24.	NW	
25.	12 km/h	
26.	42	
27.	196cm2	
28.	7.5%	
29.	55°	
30.		
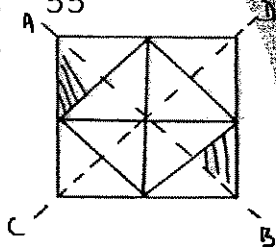
40) (8x2kg)÷4=4kg 1 day
    10x4=40
    40÷5=8

41) a) $\dfrac{(y+20)}{3}$ stamps

    b) 16stamps

42) 18

43) 22/7x7x7=154cm2
    22/7x14x14x1/2=308cm2
    154cm2+308cm2=462cm2

44) 16

45) a) 1/6
    b) 75min

46) 4.30a.m.

47) a) 30
    b) 10

48) 375

HENRY PARK PRIMARY SCHOOL
P6 SEMESTRAL EXAMINATION ONE 2007
MATHEMATICS
BOOKLET A

Name: _____ (   )   Class: P6_____

15 Questions

20 Marks

Total Time for Booklets A and B: 2 h 15 min

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

READ AND FOLLOW INSTRUCTIONS CAREFULLY.

ANSWER ALL QUESTIONS.

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1,2,3 or 4). Shade the correct ovals on the Optical Answer Sheet.   (20 marks)

1. The number of spectators at a football game when rounded off to the nearest hundred is 5 000. Which of the following could be the actual number of spectators?

    (1)   4 899

    (2)   4 950

    (3)   5 050

    (4)   5 099

                                                                    (   )

2. Find the value of $24 + 36 \div 3 \times 6 - 2$.

    (1)   24

    (2)   94

    (3)   118

    (4)   214

                                                                    (   )

3. Express 135 minutes in hours and minutes.

    (1)   1 h 15 min

    (2)   1 h 35 min

    (3)   2 h 15 min

    (4)   13 h 5 min

                                                                    (   )

2

4. The tank below contains 4200 cm³ of water. What is the base area of the tank?
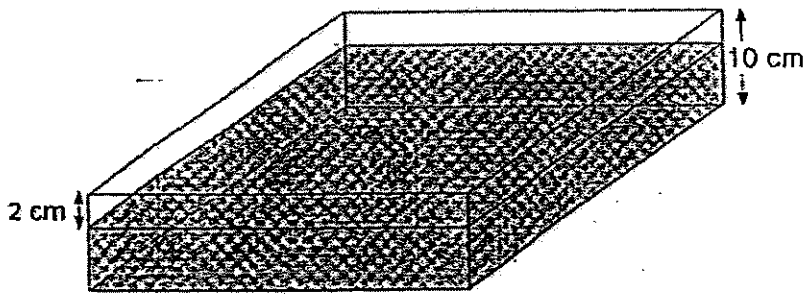
   (1)   350 cm²
   (2)   420 cm²
   (3)   525 cm²
   (4)   2100 cm²   (   )

5. 7 l 8 ml is equivalent to _____ l.

   (1)   78
   (2)   7.8
   (3)   7.08
   (4)   7.008   (   )

6. The two triangles in the figure below are equilateral triangles. Find ∠a + ∠b.

   (1)   60°
   (2)   120°
   (3)   240°
   (4)   300°   (   )

3
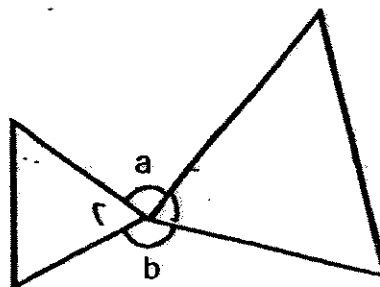
7. The diagram shows the net of a cube with its base surface indicated as shown below.
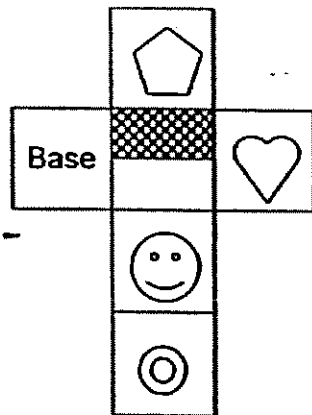
Which one of the following symbols is on the top?

(1)

(2)

(3)

(4)

(   )

8. A car travels at a speed of 66 km/h. How far can it travel in $5 \frac{1}{2}$ hours?

(1) 12 km

(2) 165 km

(3) 330 km

(4) 363 km

(   )

4

9.

Mid – Year Sale

All items going

at 20% discount !!!

Usual Price $60

Jessica bought the dress as shown in the advertisement above. If she still had to pay a GST of 5% after the discount, how much did she pay for the dress?

(1) $48

(2) $50.40

(3) $51

(4) $63   (   )

10. Farhan and Kenneth shared 240 marbles in the ratio of 4 : 11 respectively. How many marbles must Kenneth give Farhan so that the two boys would have the same number of marbles?

(1) 56

(2) 88

(3) 112

(4) 120   (   )

5

11. Out of 400 P6 pupils in a school, 80 pupils are members of uniformed groups, 200 pupils are on sports teams and 30 pupils participate in both types of activity. How many pupils are not involved in uniformed groups and sports?

   (1)   90

   (2)   120

   (3)   150

   (4)   250

                                                                        (   )

12. The table below shows the distribution of children per household in an estate.

No. of Children	Household
0	30
1	80
2	110
3	20
4	10

What percentage of the children in the estate are from households with more than 2 children?

   (1)   12%

   (2)   25%

   (3)   56%

   (4)   80%

                                                                        (   )

13. The table below shows the postage rates for sending parcels from Singapore to Australia.

POSTAGE RATES	
First 3 kg	$30
Additional 1 kg or part thereof	$9

If Razif paid $75 for sending a parcel to Australia, what could be the maximum mass of his parcel be?

(1) 3 kg

(2) 5 kg

(3) 8 kg

(4) 15 kg

(   )

14. William and Grace had $87. Grace and Siti had $115. If William had $\frac{3}{7}$ of Siti's amount, how much did Grace have?

(1) $21

(2) $49

(3) $66

(4) $132

(   )

15. Jenny had an equal number of 10-cent coins and 50-cent coins. If the total value of all her coins was $24, how many coins did she have altogether?

(1) 40

(2) 60

(3) 80

(4) 120

(   )

7

HENRY PARK PRIMARY SCHOOL
P6 SEMESTRAL EXAMINATION ONE 2007
MATHEMATICS
BOOKLET B
(PART 1)

Name: _____(   ) Class: P6_____

20 Questions

30 Marks

Total Time for Booklets A and B: 2 h 15 min

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

READ AND FOLLOW INSTRUCTIONS CAREFULLY.

ANSWER ALL QUESTIONS.

Questions 16 to 25 carry 1 mark each. Write your answers in the space provided.
For questions which require units, give your answers in the units stated.   (10 marks)

---

16. Find the sum of 25 tens, 37 tenths and 12 hundredths.

Ans :_____

17. In a two-digit number, the digit in the tens place is three times the digit in the ones place. When the digits are interchanged, the number is decreased by 54. What is this number?

Ans :_____

18. Find the length of the pencil shown below.

Ans :_____ cm

9
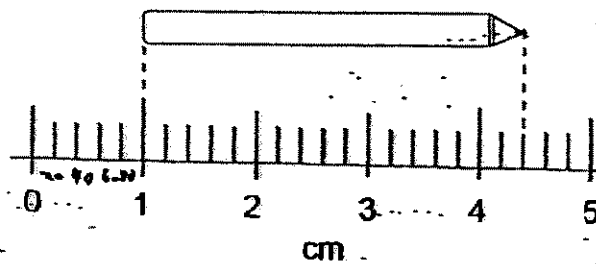
19. Kim is 10 years 9 months old now. What will be her age in 11 months' time?

Ans : _____ years _____ months

20. The figure is made up of 4 identical squares each of side 4 cm. Find the perimeter of the figure.

Ans : _____ cm

10
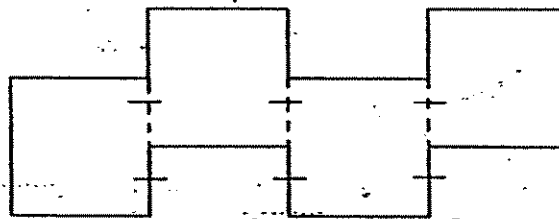
21. The diagram below shows a map of Jenny's neighbourhood.
     Name one pair of roads perpendicular to each other in the map.
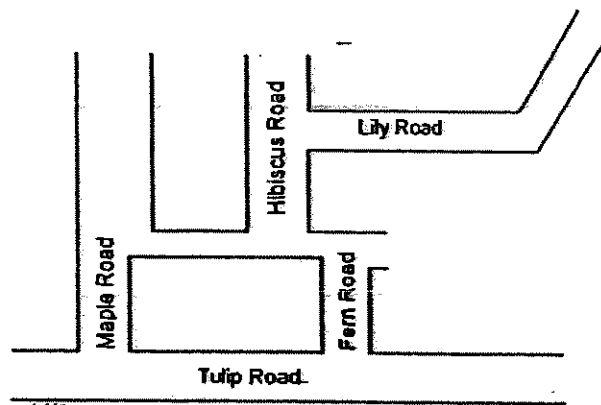
Ans : _____ Road

and _____ Road

22. The average of 4 numbers is 9. The first two numbers are the same. If the other
     two numbers are 6 and 8, find the first two numbers.

Ans : _____

23. A grandfather clock takes 12 seconds to strike 5 times, from the first to the last stroke. How long will it take to strike 10 times?

Ans : _____ s

24. The ratio of the number of girls to the number of boys studying in a tuition centre was 4 : 5. After a group of boys had joined the centre, 60% of the new total number of children were boys. What was the percentage increase in the number of boys?

Ans : _____ %

25. Simplify 7p – 4 – 2p + 9.

Ans : _____

12

Questions 26 to 35 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.   (20 marks)

26. An example of three consecutive odd numbers is 1, 3 and 5. The sum of five other consecutive odd numbers is 85. What is the largest number of these five numbers?

Ans : _____

27. A solid is made up of 4 identical cubes. The volume of the solid is 256 cm³. What is the length of each side of the cube?

Ans : _____ cm

13

28. The line graph below shows the number of books borrowed from a school library from 2003 to 2006.
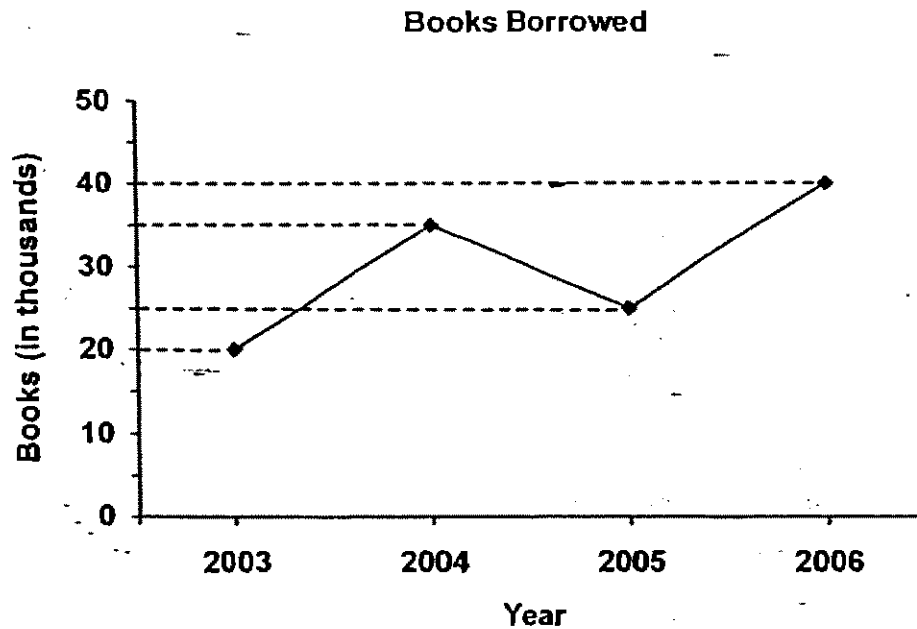
Books Borrowed

a) What was the percentage change in the number of books borrowed between 2003 and 2005?

b) How many percent more books were borrowed in 2006 than 2005?

Ans : (a)_____%

(b)_____%

14

29. The bar graph below shows the amount of tin and rubber production in the state of Jorak over four years. The amount of tin produced in 2006 is not shown in the graph yet.

Tin and Rubber Production
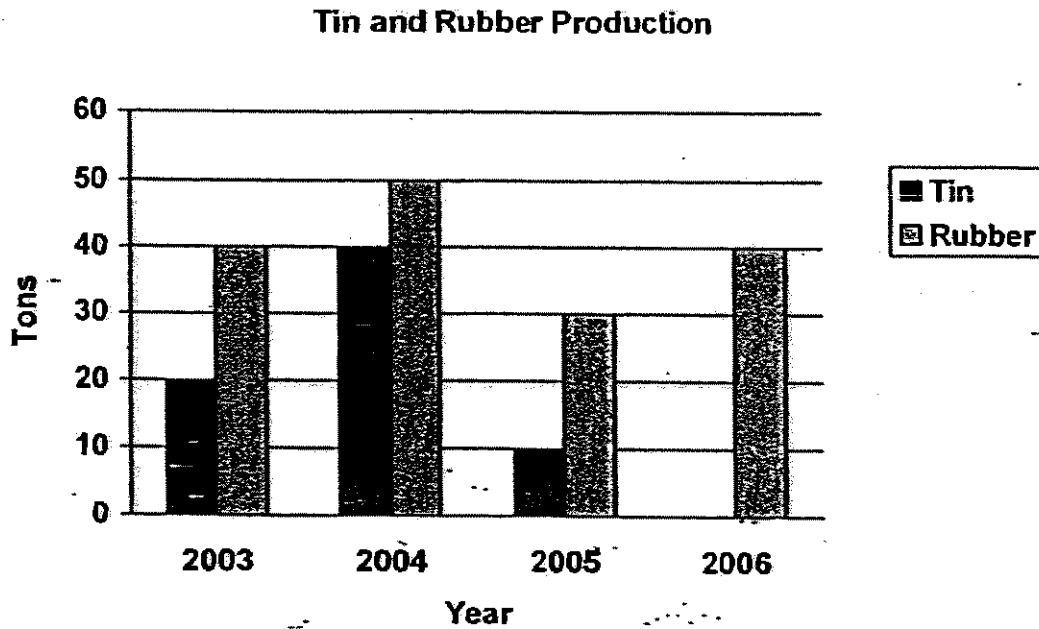
It was later calculated that the total amount of tin produced from 2003 to 2006 was 62.5% of the total amount of rubber produced over the same period. How much tin was produced in 2006?

Ans : _____ tons

15

30. Shawn left his house for a ride by taking the following route :
    Starting from his house, West 4 km, North 2 km, West 5 km, North 3 km, East 9 km and finally South 2 km. Then he stopped to take a break. How far from his house was Shawn when he stopped to take a break?

Ans : _____ km

31. Find the sum of ∠p, ∠q, ∠r and ∠s.

Ans : _____ °

16
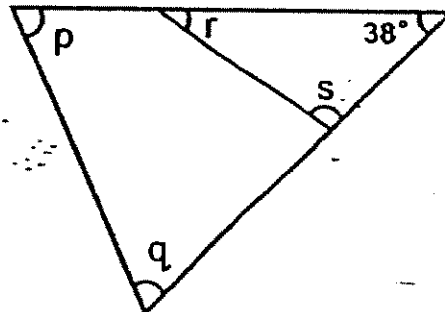
32. The total price of 4 apples and 6 watermelons is the same as that of 9 apples and 5 watermelons. Each watermelon costs $2 more than each apple. How much does each watermelon cost?

Ans : $_____

33. The figure KLMN is formed by 5 identical rectangles as shown below. If the area of KLMN is 20cm², find the perimeter of one of the rectangles.

Ans : _____ cm

17
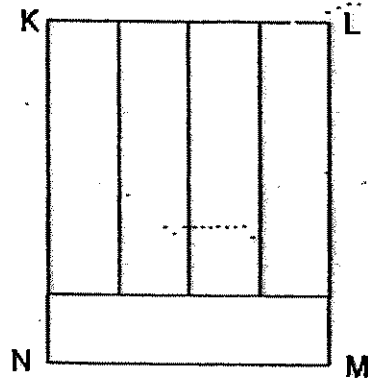
34. Mr Yuan took a coach bus from Singapore to Kuala Lumpur. The bus left Singapore at 9.30 a.m. sharp and was expected to reach the bus terminal at Kuala Lumpur 5 hours later. However, the bus ride was delayed by 1 h 40 min due to traffic congestion. What time did Mr Yuan reach the bus terminal at Kuala Lumpur?

Ans : _____ p. m

35. A faulty watch which gains 12 minutes for every normal hour is showing the correct time at 3 p.m.. What will the actual time be when the watch shows 4 p.m. that afternoon?

Ans : _____ p.m.

18

HENRY PARK PRIMARY SCHOOL
P6 SEMESTRAL EXAMINATION ONE 2007
MATHEMATICS
BOOKLET B
(PART 2)

Name:_____ ( ) Class: P6_____

13 Questions

50 Marks

Total Time for Booklets A and B: 2 h 15 min

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

READ AND FOLLOW INSTRUCTIONS CAREFULLY.

ANSWER ALL QUESTIONS.

For questions 36 to 48, show your working clearly in the space provided for each question and write your answers in the space provided.
The number of marks available is shown in [ ] at the end of each question or part-question.   (50 marks)

_____

36. A rectangular container is 33 cm by 22 cm by 20 cm. Find the maximum number of 5-cm cubes that can be placed into the container.

Ans : _____ [3]

20

37. Look at the patterns shown below. They are made up of 2-cm coloured and plain tiles.
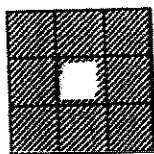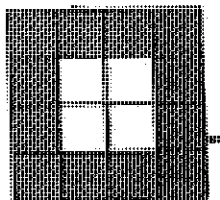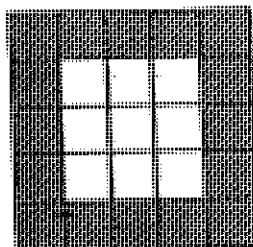
Pattern 1   Pattern 2   Pattern 3

Complete Pattern 5 in the table below.

Pattern	Number of coloured tiles	Total Area of coloured tiles
1	8	32 cm^2
2	12	48 cm^2
3	16	64 cm^2
5	(a)	(b)

(c) Which pattern number will have 176 cm^2 as the total area of coloured tiles?

Ans : (a) _____ [1]

(b) _____ [1]

(c) _____ [1]

21

38. The pie chart below shows the number of members of four co-curricular activities in a school.
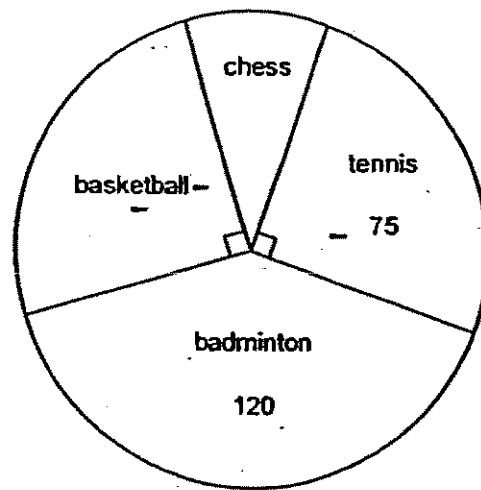
(a) Find the ratio of the number of the chess club members to the number of the tennis club members. Express your answer in the lowest term.

(b) Express the number of badminton members as a fraction of the number of basketball members in the lowest term.

Ans : (a) _____ [2]

(b) _____ [1]

22

39. The pattern in the box below shows part of a tessellation.
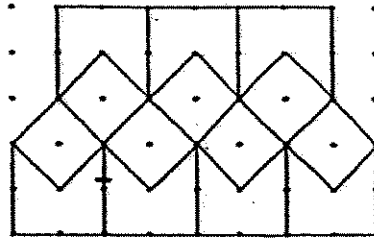
(a) . Draw a unit shape of the tessellation in the grids below. [1]

(b) Draw a line of symmetry to the unit shape that you have drawn in the grids above. [1]

(c) Extend the tessellation by drawing two more unit shapes in the grids provided below. [1]

23
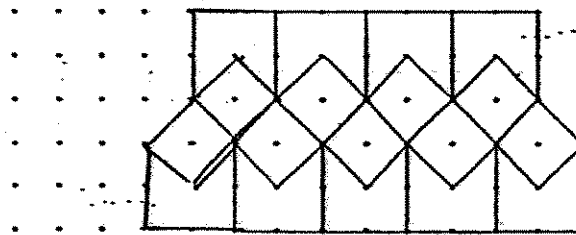
40. Alex, Ben and Darren planted 520 seeds. For every 7 seeds Alex planted, Ben planted 4 seeds. And for every 3 seeds Ben planted, Darren planted 8 seeds. How many seeds did Darren plant?

Ans : _____ [3]

41. Mr Mohan is 16k years old. He is now 4 times as old as his son. How old will he be when his son is 25 years old?

Ans : _____ [3]

24

42. Betty wants to distribute a packet of M & M's chocolates to her friends. If she gives 4 chocolates to each of them, she will have 32 chocolates left. If she gives them 8 chocolates each, she will be short of 136 chocolates.

(a) How many friends does Betty have?

(b) How many chocolates are there in the packet?

Ans : (a)_____[3]

(b)_____[1]

25

43. The owners of three bakeries compared their sales at the end of one day. Bakery A made $\frac{2}{3}$ as much money as bakeries B and C combined. Bakery B made $\frac{3}{5}$ as much money as bakeries A and C combined. If bakery B made $720 more than bakery C, how much did bakery A make?

Ans : _____ [4]

26

44. The figure below is not drawn to scale. TUVW is a straight line and VY is parallel to WX.

(a) Find ∠ UVY.

(b) Find ∠ VXW.

Ans : ∠UVY = _____ [1]

∠VXW = _____ [3]

27
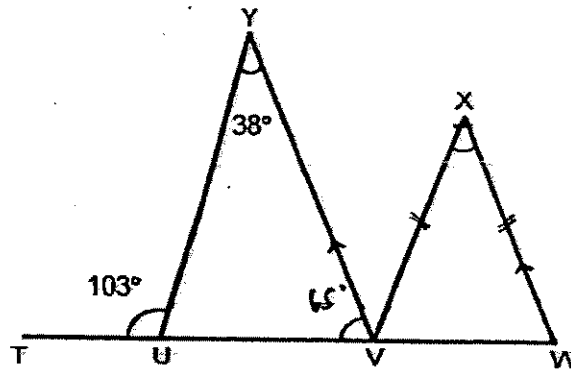
45. Towns X and Town Y were 350 km apart. At 11.30 a.m., a van started travelling from Town X towards Town Y at 80 km/h. Two hours later, a truck started travelling from Town Y towards Town X at 54 km/h.

   (a)   How far from Town X was the van at 3.30 p.m.?

   (b)   What was the distance between the ~~car~~ van and the ~~ferry~~ truck at 3.30 p.m.?

Ans : (a)_____ [2]

(b)_____ [3]

28

46. The square WXYZ is made up of 4 identical triangles and a small square LKMN. LY = 8 cm and LZ = 6 cm. Find the perimeter of the square WXYZ.

Ans : _____ [5]

29
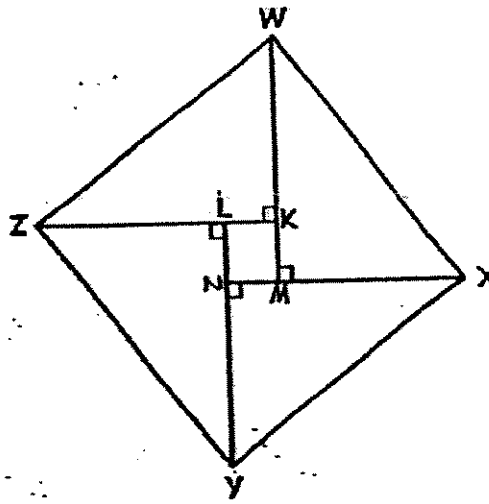
47. In Hall A, 30% of the 800 people were men. In Hall B, 40% of the 400 people were women and children. After some of the people in both halls had switched hall, 25% of the people in Hall A and 75% of those in Hall B were men. How many people were there in Hall B after the change?

Ans : _____ [5]

30

48. Wendy bought CDs at $3 each and sold them at $8 each. To promote sales, all customers who bought two CDs were given one free CD. After she had sold all the CDs, Wendy made a gain of $1235 despite giving away 150 CDs to her customers. How many of Wendy's customers bought only one CD?

Ans : _____ [5]

End - of - Paper

Setters : Mdm Zuraidah
　　　　　Mr Lim Ming Liang

31
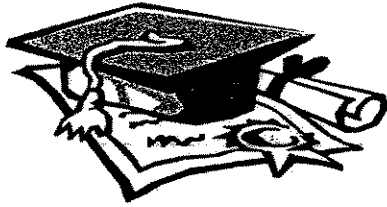
ANSWER SHEET

HENRY PARK PRIMARY SCHOOL - PRIMARY 6 MATHEMATICS 2007
SEMESTRAL ASSESSMENT (1)

1. 2	31) 284
2. 2	32) $2.50
3. 3	33) 10cm
4. 3	34) 4.10pm
5. 4	35) 3.50p.m
6. 3	36) 96
7. 2	37) a) 24
8. 4	b) 80cm2
9. 2	c) 10th
10. 1	38) a) 2:5
11. 3	b) 1 3/5
12. 2	
13. 3	
14. 3	
15. 3	
16. 253.82	
17. 93	
18. 3.4cm	
19. 11 years 8 mth	
20. 52 cm	
21. Hibiscus Rd and Lily Rd	
22. 11	
23. 24	
24. 20%	
25. 5p+5	
26. 21	
27. 4cm	
28. a) 25% b) 60%	
29. 30 tons	
30. 3km	

39)
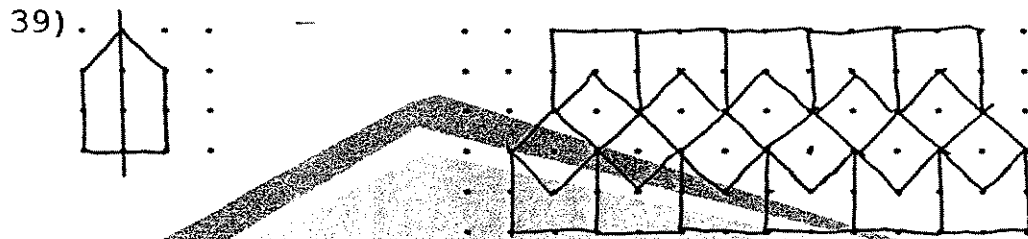
40) 256
41) (25+12k)
42) a) 42
    b) 200
43) $1920
44) 65°
    50°
45) a) 320 km
    b) 78 km
46) 100 cm
47) 360
48) 37

HENRY PARK PRIMARY SCHOOL
P6 PRELIMINARY EXAMINATION 2007
MATHEMATICS
BOOKLET A

Name: _____ (   )   Class: P6_____

15 Questions

20 Marks

Total Time for Booklets A and B: 2 h 15 min

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

READ AND FOLLOW INSTRUCTIONS CAREFULLY.

ANSWER ALL QUESTIONS.

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct ovals on the Optical Answer Sheet. (20 marks)

1. What is the value of the digit 5 in 238.154?

   (1) 5 tens

   (2) 5 tenths

   (3) 5 hundredths

   (4) 5 thousandths   (   )

2. Express $6\frac{1}{25}$ kg in g.

   (1) 640 g

   (2) 6 004 g

   (3) 6 040 g

   (4) 6 400 g   (   )

3. Express 40 min as a fraction of $1\frac{1}{5}$ h.

   (1) $\frac{5}{9}$

   (2) $\frac{1}{2}$

   (3) $\frac{1}{3}$

   (4) $\frac{3}{400}$ (   )

4. The number of pupils in a school is about 2500. What could be the actual number of pupils in the school if it has been rounded off to the nearest hundred?

   (1) 2 449

   (2) 2 495

   (3) 2 551

   (4) 2 599   (   )

1

5. A tank holds 2 400 ml of water when it is $\frac{5}{8}$ full. How many millilitres of water will it hold if it is $\frac{3}{4}$ full?

    (1) 1 440 ml

    (2) 1 500 ml

    (3) 1 800 ml

    (4) 2 880 ml   (   )

6. The graph below shows the number of people in a supermarket from 2 p.m. to 8 p.m.
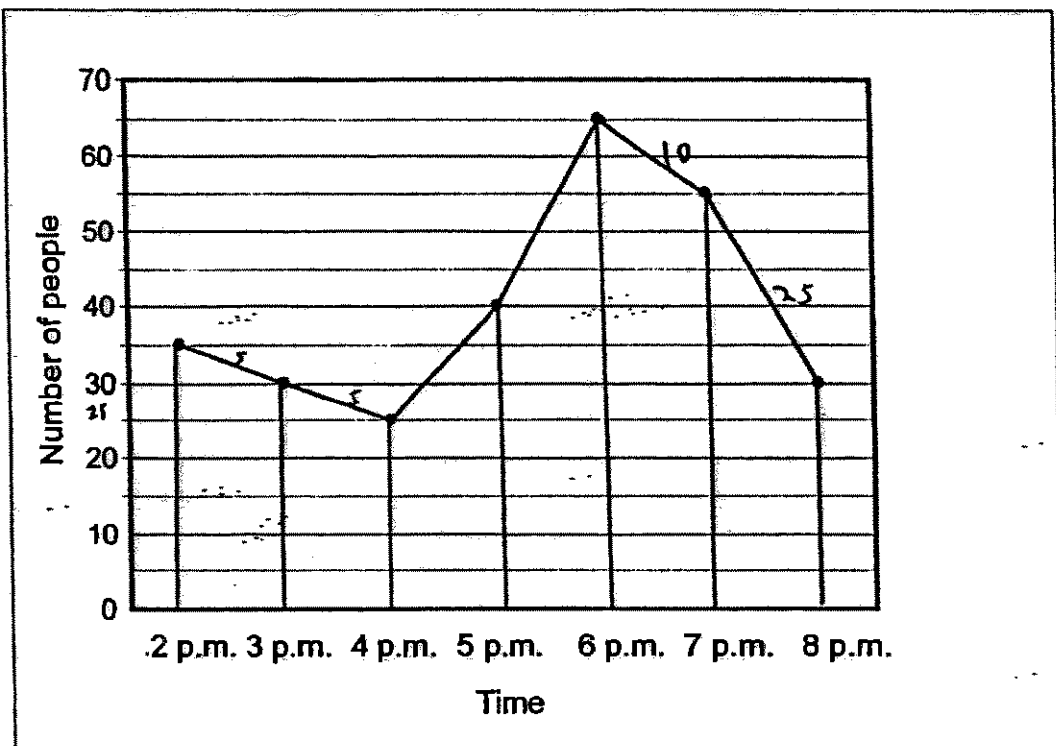
Which one of the following intervals shows the biggest decrease in the number of people in the supermarket?

    (1)   2 p.m. to 3 p.m.

    (2)   3 p.m. to 4 p.m.

    (3)   6 p.m. to 7 p.m.

    (4)   7 p.m. to 8 p.m.   (   )

2

7. Which of the following figures shows a correct line of symmetry?

(A)

(C)

(B)

(D)
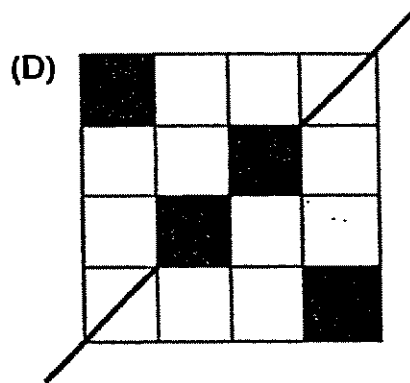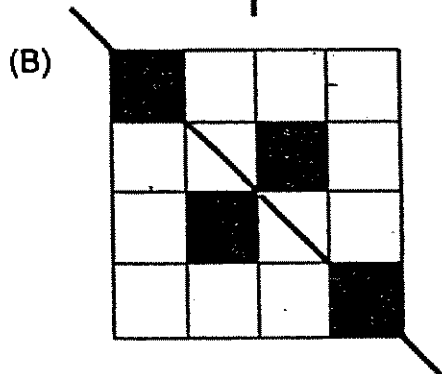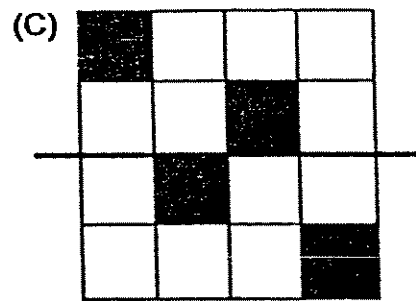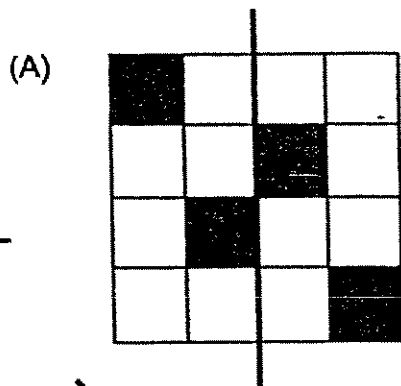
(1) A and B

(2) B and C

(3) B and D

(4) C and D   (   )

8. Which one of the following can be tessellated?

(1)

(3)

(2)

(4)

(   )

3
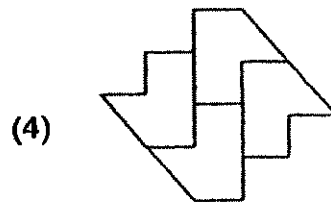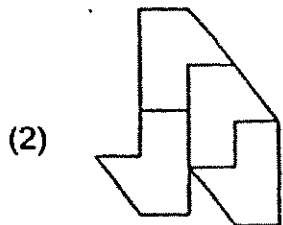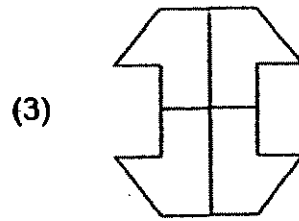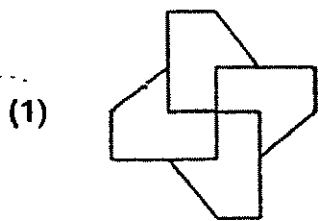
9. The cost of a ruler is $1.50. The total cost of two identical sharpeners is 50¢ more than the ruler. What is the ratio of the cost of the ruler to that of the sharpener?

    (1)   6 : 1

    (2)   6 : 7

    (3)   3 : 2

    (4)   3 : 4   (   )

10. What is the value of $(12 + 24) \div 3 \times 6 - 2 \times 5$?

    (1)   10

    (2)   50

    (3)   62

    (4)   350   (   )

11. A cyclist travelled 600 m in 3 minutes. What was his average speed?

    (1)   12 km/h

    (2)   18 km/h

    (3)   20 km/h

    (4)   36 km/h   (   )

12. There were 40 passengers in a ferry. 24 of them were male passengers. How many percent more male than female passengers were in the ferry?

    (1)   60%

    (2)   50%

    (3)   40%

    (4)   20%   (   )

4

13. Liza ate $\frac{1}{3}$ of a cake and gave away $\frac{1}{8}$ of the remainder. What is the fraction of the cake left?

(1) $\frac{5}{24}$

(2) $\frac{19}{24}$

(3) $\frac{1}{12}$

(4) $\frac{7}{12}$ (   )

14. The average cost of the books in a box was $15 at first. When a book which costs $27 is placed in the box, the average cost becomes $18. How many books are in the box now?

(1) 3

(2) 4

(3) 6

(4) 9   (   )

15. The figure is made up of 4 identical rectangles. Find the area of the shaded part.
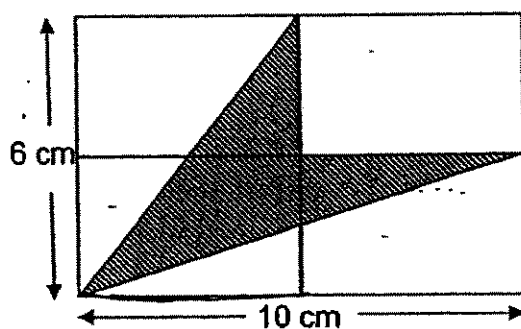
(1) 45 cm^2

(2) 30 cm^2

(3) 20 cm^2

(4) 15 cm^2 (   )

5

HENRY PARK PRIMARY SCHOOL
P6 PRELIMINARY EXAMINATION 2007
MATHEMATICS
BOOKLET B
(PART 1)

Name: _____( ) Class: P6 _____

20 Questions

30 Marks

Total Time for Booklets A and B: 2 h 15 min

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

READ AND FOLLOW INSTRUCTIONS CAREFULLY.

ANSWER ALL QUESTIONS.

Questions 16 to 25 carry 1 mark each. Write your answers in the space provided.
For questions which require units, give your answers in the units stated. (10 marks)

16. What fraction of the figure below is shaded?

Ans : _____

17. Express $2\dfrac{8}{9}$ as a decimal rounded off to 1 decimal place.

Ans : _____

18. In the figure, ABCD and EFGH are squares. The area of EFGH is 64 cm². Find the perimeter of the unshaded region.

Ans : _____ cm

6
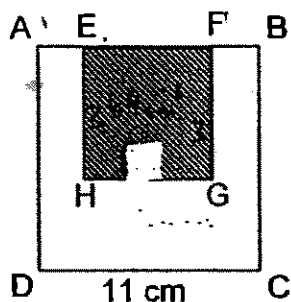
19. A rectangular tank, 50 cm long and 40 cm wide, is half-filled with water. Another 20 litres of water is needed to fill the tank to the brim. What is the height of the tank?

Ans : _____ cm

20. The figure is made up of 2 semi-circles of diameter 10 cm. Find the perimeter of the figure. (Take π = 3.14)

7 cm
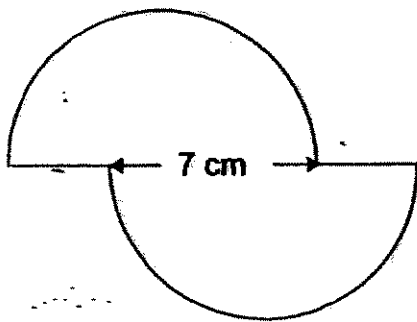
Ans : _____ cm

21. In the figure not drawn to scale, AB is a straight line and ∠x = ∠y. Find ∠x.

Ans : _____ °

7
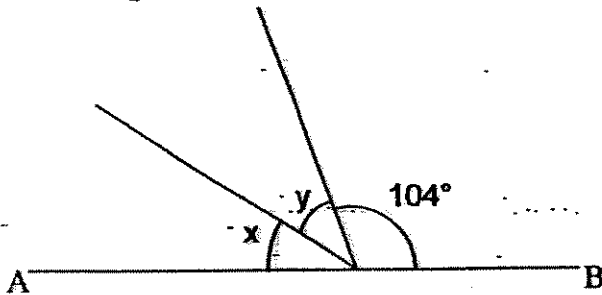
22. A printer can print 200 cards in 8 minutes. At this rate, how many cards can it print in $\frac{1}{4}$ hour?

Ans : _____

23. The figure below is a net of a cube. Which one of the faces is the top of the cube?

		E	
D	base	C	
		B	A
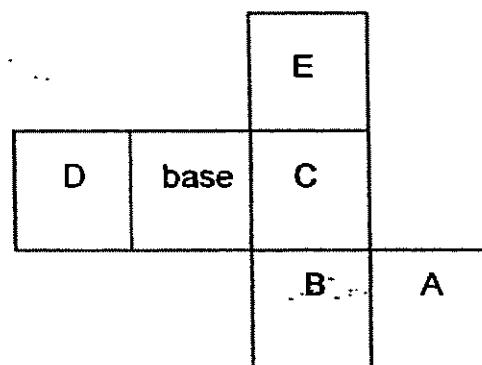
Ans : _____

24. If 30% of a number is 135, what is the number?

Ans : _____

25. Joel is *k* years older than his brother. If his brother is 5 years old, how old is Joel?

Ans : _____ years old

8

Questions 26 to 35 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.   (20 marks)

26. 8 packets of French fries cost $20. What is the maximum number of packets of French fries I can buy with $32?

Ans : _____

27. The square has a diagonal of length 12 cm. Find its area.

Ans : _____cm²

9
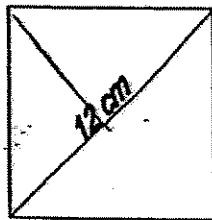
28. The pie chart below shows how Ming spent a month's allowance his parents had given him.
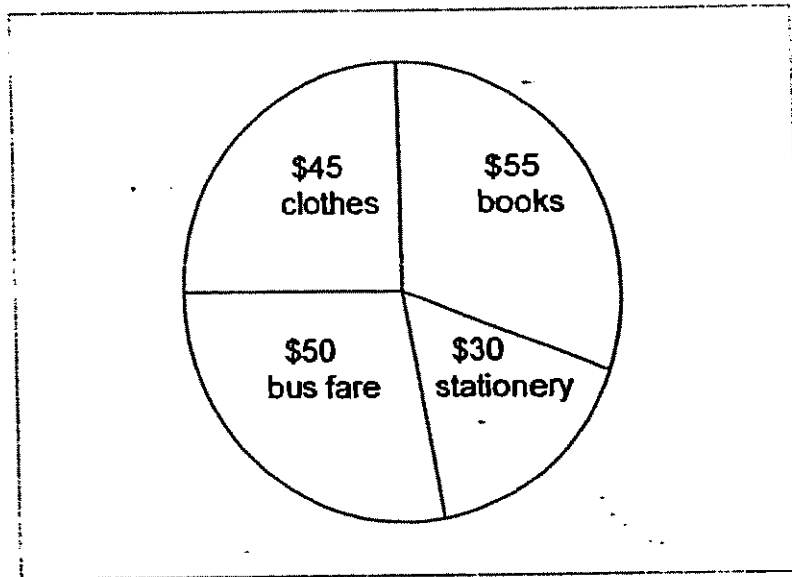
What fraction of his monthly allowance is spent on bus fare and stationery? Give your answer in the simplest form.

Ans : _____

10

29. The bar graph shows the number of fiction and non-fiction books sold by ABC
Bookshop in the first 3 days of a book fair.
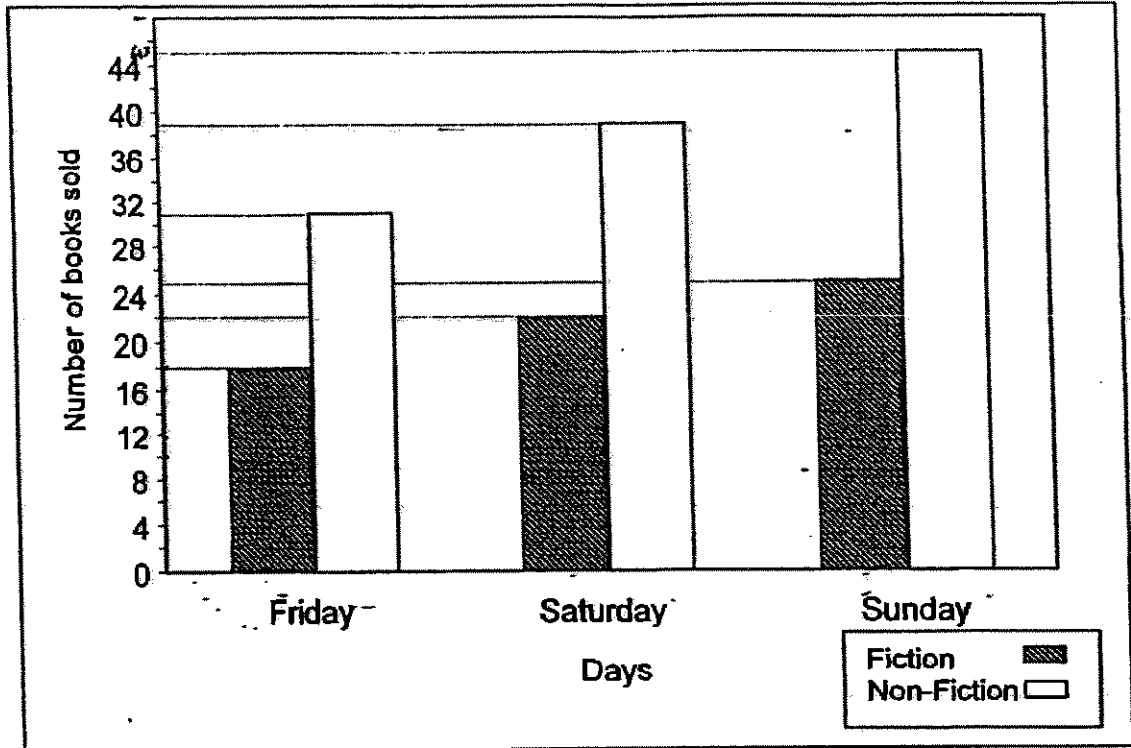
Find the ratio of the total number of books to the total number of fiction books in
its simplest form.

Ans : _____

30. Ben and Jerry shared an amount of money in the ratio of 3 : 5 respectively.
After Ben spent $20, the ratio of the amount of money Ben and Jerry had
became 1 : 2. How much money did Jerry have?

Ans : $ _____

11

31. PQRS is a parallelogram. SRT is a straight line. Find ∠QRT.
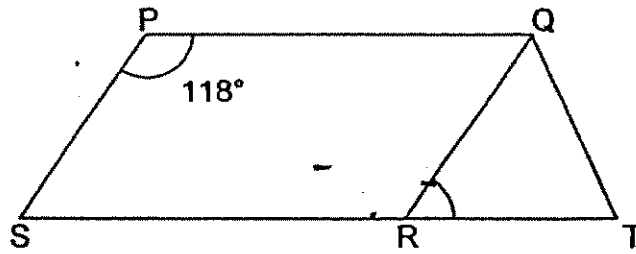
Ans : _____ °

32. 3 apples and 2 oranges cost $2.15. 1 apple and 1 orange cost $0.85. What is the cost of 1 orange?

Ans : $_____

12

33. A rectangular sheet of cardboard measures 34 cm by 24 cm. What is the maximum number of rectangular pieces that can be cut from it if each piece measures 6 cm by 4 cm?

Ans : _____

34. The figure is made up of some identical cubes. It is placed in a corner of the wall. Find the volume of the figure.

24 cm
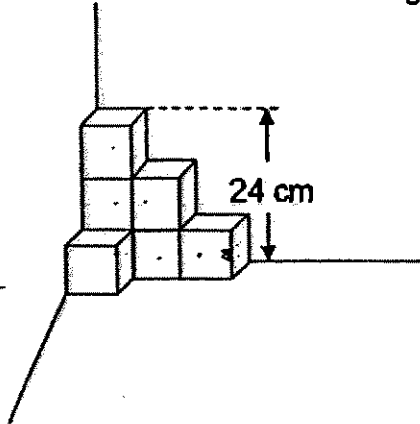
Ans : _____ cm³

35. In a triangle, Angle P is 150% of Angle Q and Angle Q is 50% of Angle R. Find Angle R.

Ans : _____ °

13

HENRY PARK PRIMARY SCHOOL
P6 PRELIMINARY EXAMINATION 2007
MATHEMATICS
BOOKLET B
(PART 2)

Name: _____( )   Class: P6_____

13 Questions

50 Marks

Total Time for Booklets A and B: 2 h 15 min

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

READ AND FOLLOW INSTRUCTIONS CAREFULLY.

ANSWER ALL QUESTIONS.

For questions 36 to 48, show your working clearly in the space provided for each question and write your answers in the space provided.
The number of marks available is shown in [ ] at the end of each question or part-question.
(50 marks)

---

36. Joseph has $m. Kenny has 3 times as much money as Joseph. Leo has half the amount of money Joseph and Kenny has altogether. How much money do the 3 boys have altogether?

Ans : _____ [3]

37. In the figure, ABCD is a square of side 8 cm. BE is 2 cm and FC is 3 cm. Find the area of △AEF.

Ans : _____ [3]

1⁄
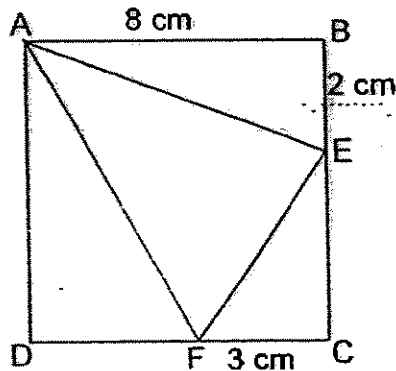
38. The table below shows the number of pupils who were late for school from January to May this year. There were 80 latecomers during this period of time.

Month	Jan	Feb	Mar	April	May
Number of latecomers	16	10	12	22	?

(a) How many pupils were late for school in May? [1]

(b) Plot the missing data in the bar graph drawn below. [1]
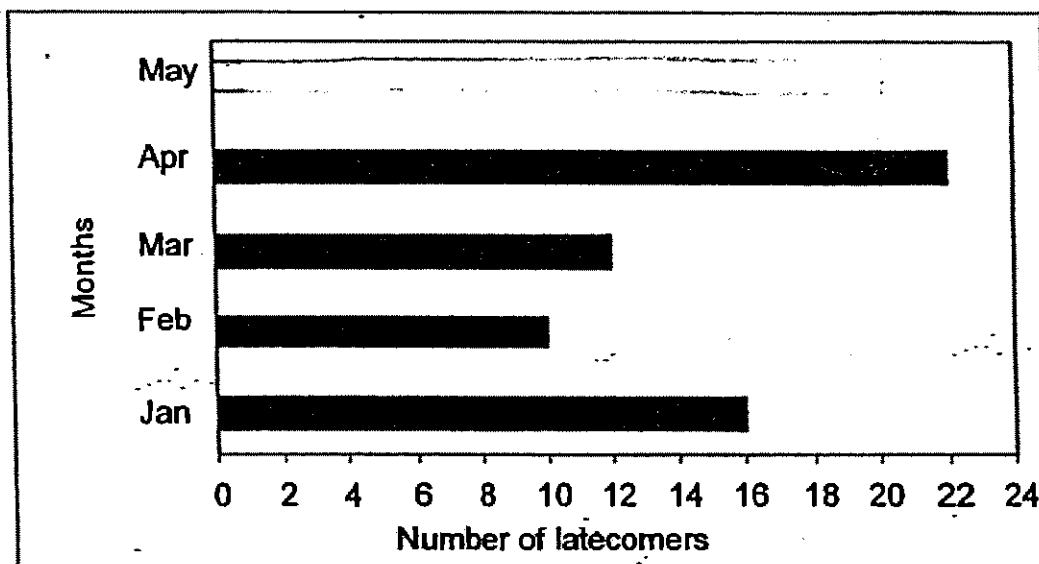
(c) What percentage of the number of latecomers came late in the month of January?

Ans : (a) _____ [1]

(c) _____ [1]

15

39.   The figure is not drawn to scale. ABCD is a parallelogram. Find ∠ADC.
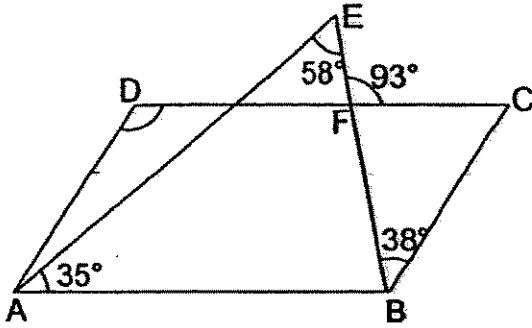
Ans : _____ [3]

40.   There were 30 more members in the IT Club than in the Art Club. 15 members left the Art Club for the IT Club. It was then found that the number of members in the IT Club was 5 times as many as the number of members in the Art Club. How many members were there in both clubs altogether?

Ans : _____ [3]

16

41. In the following figures, the area of the biggest equilateral triangle is 64 cm^2 as shown in Figure 1. A new triangle is formed by connecting the midpoints of the sides of the previous triangle. If the pattern continues, find the area of the smallest triangle in Figure 4.
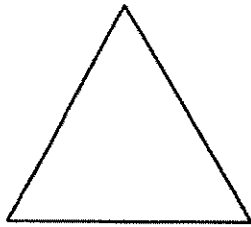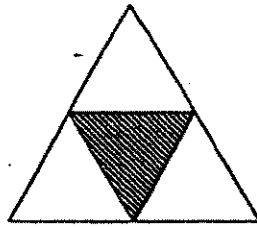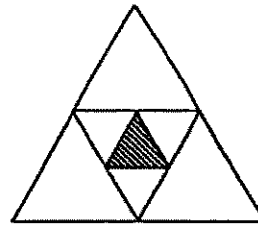
Figure 1   Figure 2   Figure 3   Figure 4

Ans : _____ [3]

17
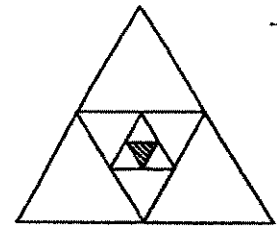
42. At first, the total number of sheep in Farm A and Farm B was 980. After $\frac{3}{5}$ of the sheep in Farm A and 200 of the sheep in Farm B are sold, the ratio of the number of sheep in Farm A to Farm B becomes 1 : 4.

(a) Find the number of sheep in Farm B at first.

(b) Find the total number of sheep left in Farm A and Farm B.

Ans: (a) _____[2]

(b) _____[2]

18

43. Four children, Angela, Belinda, Cristobel and Dorothy shared $240. Angela received $\frac{1}{2}$ of the total amount of money received by Belinda, Cristobel and Dorothy. Belinda received $\frac{2}{3}$ of the total amount of money received by Cristobel and Dorothy. Cristobel received 3 times as much money as Dorothy.

(a) How much money did Dorothy receive?

(b) What fraction of Angela's money is Dorothy's money if Angela gave $20 to Dorothy?

Ans: (a) _____[2]

(b) _____[2]

19

44.   Study the diagram below.

(a)   What is the sum of ∠a, ∠b, ∠c, ∠d, ∠e and ∠f?
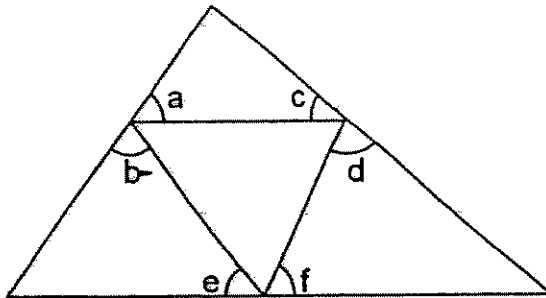
The figure below shows a rectangle and a triangle.

(b)   What is the sum of ∠p + ∠q?

Ans: (a) _____ [2]

(b) _____ [2]

20
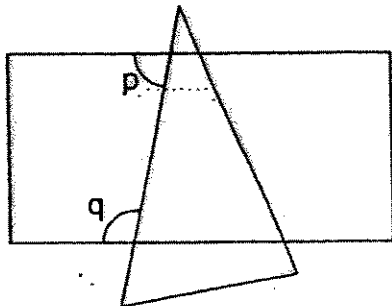
45. Terrence earns $350 less than Leslie every month. They each spend $800 every month and save the rest of their money.

(a)   How long does it take for Terrence to save $2100 and Leslie to save $4550?

(b)   What is Terrence's monthly salary?

Ans: (a) _____ [2]

(b) _____ [3]

21

46. In the figure, ABCD is a square with a perimeter of 84 cm. It is made up of identical squares and quarter-circles. (Take $\pi = \dfrac{22}{7}$)

(a) Find the perimeter of the shaded region.
(b) Find the area of the shaded region.

Ans: (a) _____[2]

(b) _____[3]

22
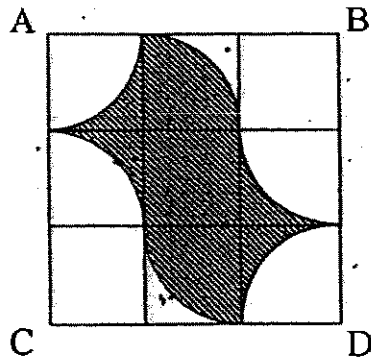
47. At first, Bob had only $5-notes and Chris had only $2-notes. The number of notes Bob had is 80% of Chris' notes. When Bob gives Chris $100, the number of notes Chris has now is 70% more than Bob.

(a) How many notes did Bob have at first?

(b) How much money does Chris have at the end?

Ans: (a) _____ [3]

(b) _____ [2]

23

48. A lorry, a van and a car set off at the same time travelling at a constant speed of 60 km/h, 80 km/h and 120 km/h respectively. The lorry and the van were travelling from Town G to Town H while the car was travelling from Town H to Town G. The car passed the lorry 2 minutes after passing the van.

   (a) Find the ratio of the distances travelled by the lorry to the van to the car at the moment when the car passed the van.

   (b) Find the distance between Town G and H.

Ans: (a) _____ [2]

   (b) _____ [3]

End - of - Paper

24

Setters : Mrs Priscilla Heng
Mrs Norah Idil
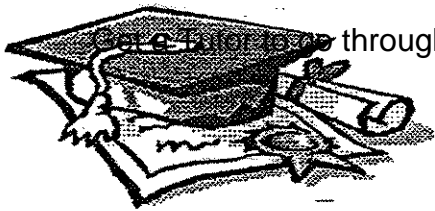
ANSWER SHEET
Henry Park Pri 6 SA2/2007 Maths

1)3	2)3	3)1	4)2	5)4	6)4
7)3	8)4	9)3	10)3	11)1	12)2
13)4	14)2	15)4	16)$\frac{1}{3}$	17)2.9	18)60
19)20cm	20)37.4	21)38^0	22)375	23)A	24)450
25)(5+K)	26)12	27)72cm^2	28)$\frac{4}{9}$	29)?	30)$200
31)62^0	32)$0.40	33)34	34)3584cm^3	35)80^0	36)$6m
37)27cm^2	38)a.20	38)b.			
38)c.20%	39)125^0	40)90			
41)1cm^2	42)a.680	42)b.600			
43)a.$24	43)b.$\frac{11}{15}$	44)a.360^0			
44)b.180^0	45)a.7	45)b.$1100			
46)a.66cm	46)b.168cm^2	47)a.120			
47)b.$400	48)a.3:4:6	48)b.60km			
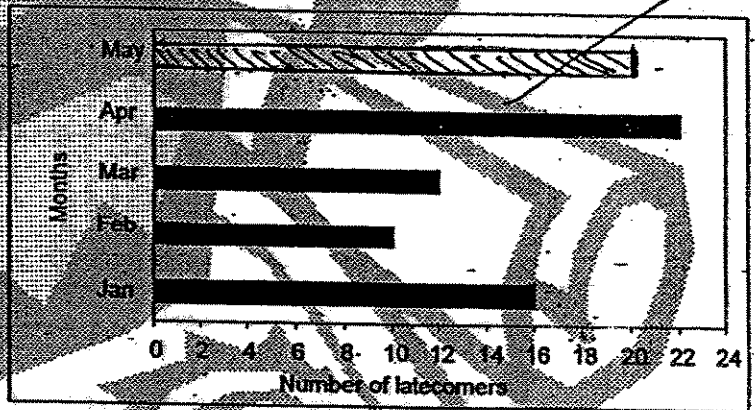
Maha Bodhi School

2007 Preliminary Examination

Mathematics

Name   : _____ (. ,)   Date   : **21 August 2007**

Class   : Pr 6   _____   Duration : **2 h 15 min**

BOOKLET A

Section A   (20 marks)

Questions 1 to 10 carry 1 mark each.   Questions 11 to 15 carry 2 marks each.   For each question, four options are given.   One of them is the correct answer.   Make your choice (1, 2, 3 or 4).

Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.

1.   Sally was supposed to meet her friend at 5 minutes to 10.

She arrived $\frac{1}{4}$ h after the appointed time.   15 min

At what time did she arrive?

(1)

(2)

(3)

(4)

- page 1 -
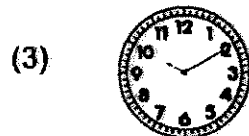
2. For every 2 dumplings that a new worker wraps, an experienced one can wrap 3 more. The two workers wrapped a total of 70 dumplings together one morning.
How many more dumplings were wrapped by the experienced worker?
(1) 14
(2) 30
(3) 42
(4) 50

3. Mother made two identical pizzas and cut each pizza into a different number of equal pieces.
She then gave one piece of each pizza away.
What fraction of the pizzas she had baked was given away?
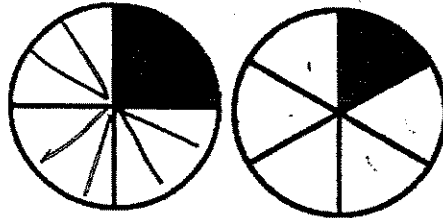
(1) $\dfrac{1}{5}$

(2) $\dfrac{5}{12}$

(3) $\dfrac{5}{24}$

(4) $\dfrac{1}{6}$

4. Which one of the following has the same value as 2.16 ÷ 0.3 ?
(1) $\dfrac{216}{3}$

(2) $\dfrac{21.6}{30}$

(3) $\dfrac{216}{30}$

(4) $\dfrac{216}{0.003}$

5. The rectangles shown below are identical.   A part of each rectangle is then shaded.   Which one of the following rectangles has the smallest fraction of it shaded?

(1)

(2)

(3)

(4)
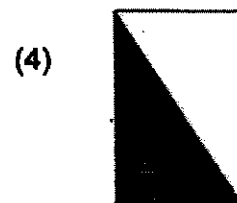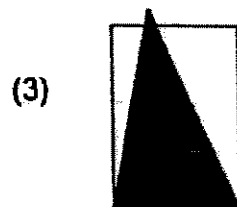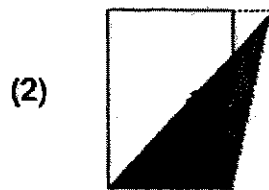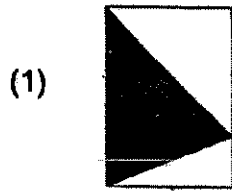
6. There are 20 pupils in a class.   There are more girls than boys in the class.   Which one of the following is most probably the ratio of the number of boys to that of the girls in the class?
   (1)   1: 2
   (2)   2: 3
   (3)   3: 4
   (4)   4: 5

7. A certain number will give the same answer when rounded off to the nearest ten, hundred or thousand.
   Which one of the following can be that number?
   (1)   1599
   (2)   1995
   (3)   2990
   (4)   9953

8.　　　The table below shows the number of points four pupils had before and after Round 3 of a computer game.

Pupil	Before Round 3	After Round 3
Abdullah	100 points	50 points
Badawi	120 points	30 points
Mohamad	200 points	40 points
Mahatir	300 points	100 points

Which pupil has lost the largest percentage of his points?
(1)　　Abdullah
(2)　　Badawi
(3)　　Mohamad
(4)　　Mahatir

9.　　　Samy took out three identical matchsticks from a matchbox and formed a triangle with them as shown in the diagram below.
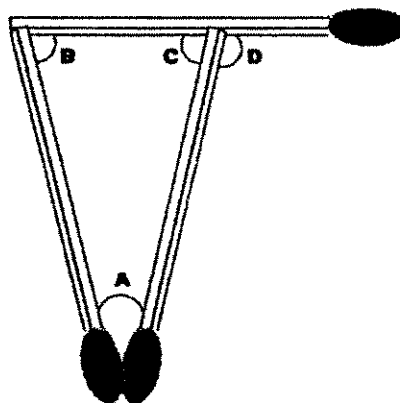
Samy then made a few statements about the angles but only one of them is **definitely** correct.　Which one is it?
(1)　　∠A + ∠C = ∠B + ∠A
(2)　　∠B + ∠C = ∠D
(3)　　∠A + ∠B = ∠C + ∠D
(4)　　∠B + ∠C = ∠A

After a game, three girls counted the number of marbles they had left and two of them made the following observations. Study the picture before answering Question 10.

10. Which one of the following statements is **not** possible?
    (1) Valerie had more marbles left than Vanessa.
    (2) Melissa had the most number of marbles left.
    (3) Both Vanessa and Valerie had 2 marbles left.
    (4) Valerie had 6 marbles left.

Siti wants to stack up some identical toy soldiers as shown below to form a toy pyramid. If the toys are stacked up three layers high, they will reach 23 cm. If the toys are stacked up two layers high, they will reach only 16 cm.
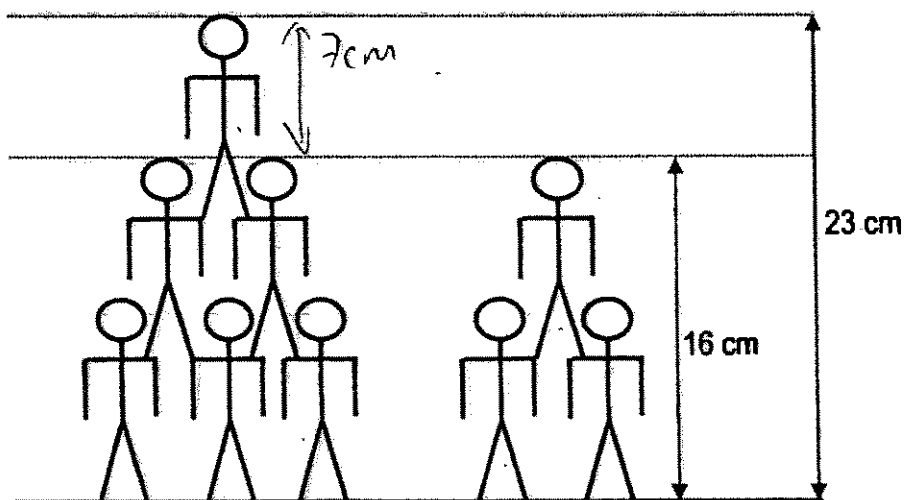
11. If Siti wants to stack up 10 toys in the same pattern, how high will it reach?
    (1)   28 cm
    (2)   30 cm
    (3)   35 cm
    (4)   65 cm

- page 5-

A group of children was asked to name their favourite sports. The pie chart below shows what the pupils chose. Given that AB is a straight line and that 20 pupils picked basketball as their favourite sports, study the pie chart below carefully and answer Question 12.
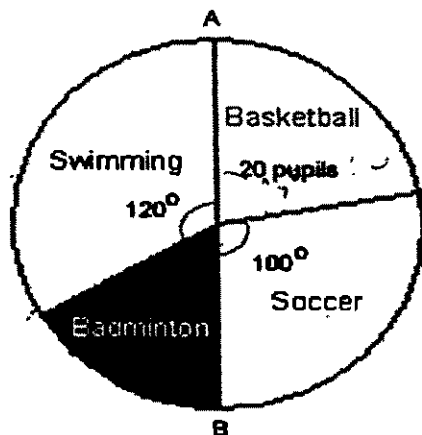
12.   How many more pupils preferred soccer to badminton?
       (1)   40
       (2)   25
       (3)   15
       (4)   10

13.   When two of the solid figure (shown on the right) are stacked together, a cube will be formed.
       Which one of the following is the net of the solid figure?
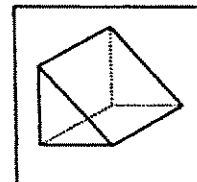
       (1)
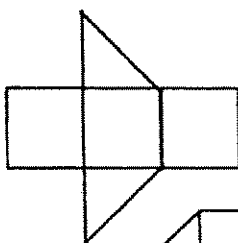
       (2)
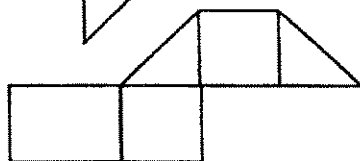
       (3)
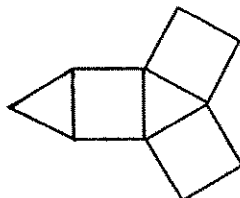
       (4)
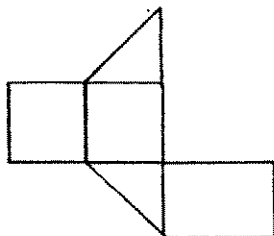
A child from every unit in a block of flats was asked how many other children lived in the same flat. The bar graph below presents the results. Study it carefully and answer Questions 14 & 15.

Number of Other Children
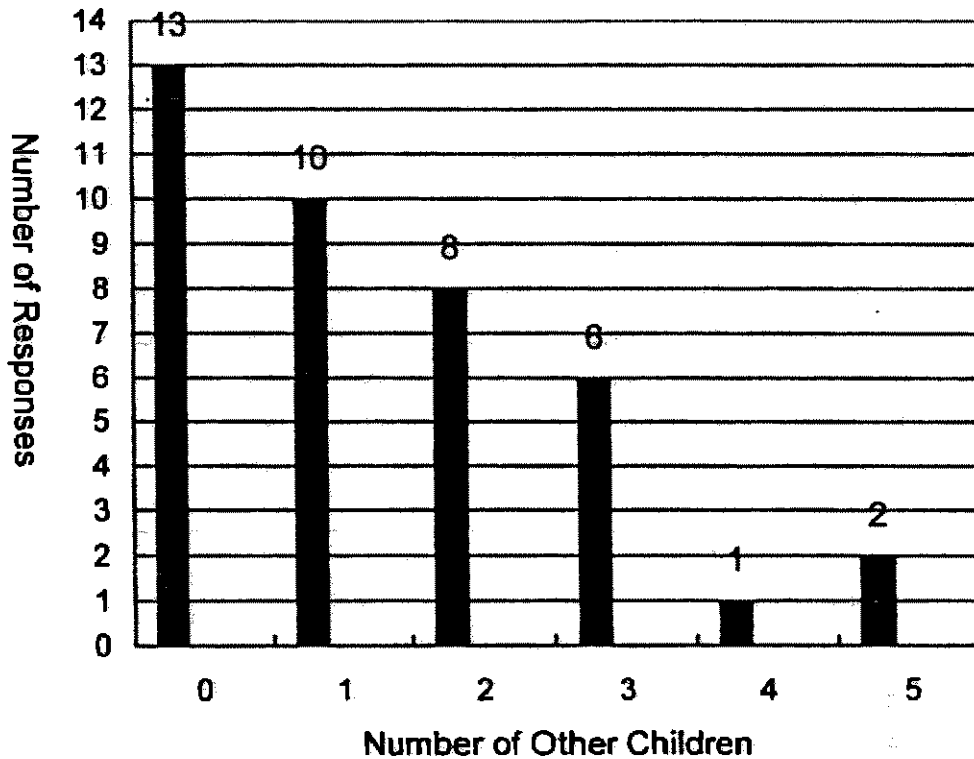
14.   From the survey, what is the largest number of children living in a flat?
        (1)   5
        (2)   6
        (3)   13
        (4)   18

15.   What is the total number of children living in that block of flats?
        (1)   40
        (2)   58
        (3)   85
        (4)   98

Please proceed to Booklet B.
Please ensure that you have transferred your
answers correctly onto your OAS.

- page 7-

Maha Bodhi School

2007 Preliminary Examination

Mathematics

Name   :___ _____( )

Class   : Pr 6 _____

Duration : **2 h 15 min**

Date   : **21 August'2007**

Parent's Signature : _____

Section A (20 marks)	
Section B (30 marks)	
Section C (50 marks)	
Total (100 marks)	

BOOKLET B

Section B   (30 marks)

Questions 16 to 25 carry 1 mark each. Write your answers in the spaces provided.
For questions which require units, give your answers in the units stated.   (10 marks)

16.   The multiple of 4 just before 32 is _____

17.   A certain number has 9 factors.
       8 of them have been listed below.
       Write down the missing factor in the empty box below.

1	3	9	18	4	36	2		12

18.   What do you get when you subtract 4 hundredths from the sum of
       1.23 and 567.8 ?

19.   With a ruler, measure and write down the length of AB.

A |——————————————————| B

|_____ cm |
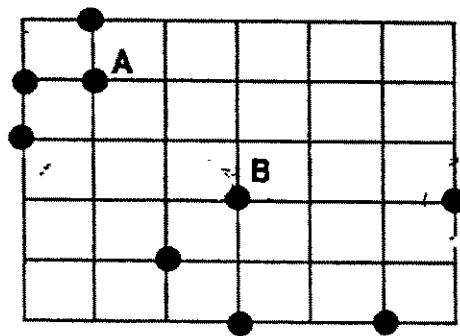
20.   Ahmad is facing Point A from Point B.
       When he turns 135° in clockwise direction, he will face another point.
       Circle that point in the diagram above.

21.   The square shown on the right has two identical semi-circles
       in it.   If the perimeter of the square is 80 cm,
       what is the total area of the shaded parts?   (Take π = 3.14)
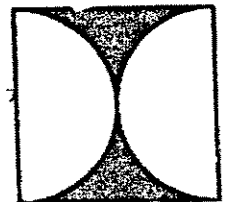
|_____ cm² |

22.   Muthu has some 50¢ coins, twice as many 20¢ coins and thrice as
       many 5¢ coins as 50¢ coins.   His 50¢ coins add up to $2.
       How much money does he have?

| $ _____ |

23.   One inch is about 2.54 cm.
       How many cm are there in 8 inches?
       (Leave your answer to one decimal place)

|_____ cm |

- page 8 -

24.   Three 4-cm cubes are glued together to form a cuboid.
       Find the volume of the cuboid.

       ┌─────────────────────────────┐
       │   cm³   │
       └─────────────────────────────┘

25.   Mark with an 'x' the approximate position of 13.3 in the diagram
       below.
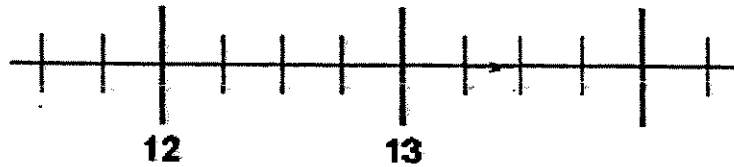
       12   **13**

Questions 26 to 35 carry 2 marks each. Show your working clearly in the space below each
question and write your answers in the spaces provided.
For questions which require units, give your answers in the units stated.   (20 marks)

26.   Without repeating any digit, write down the largest 3-digit number
       which is divisible by 5.

       ┌─────────────────────────────┐
       │   │
       └─────────────────────────────┘

27.   If 56 X 78 = 4368,
       then _____ + 7.8 = 56

       ┌─────────────────────────────┐
       │   │
       └─────────────────────────────┘

28.   Construct the line BC in the diagram below such that
       ∠ABC = 35° and BC = 8 cm.

       A

       B
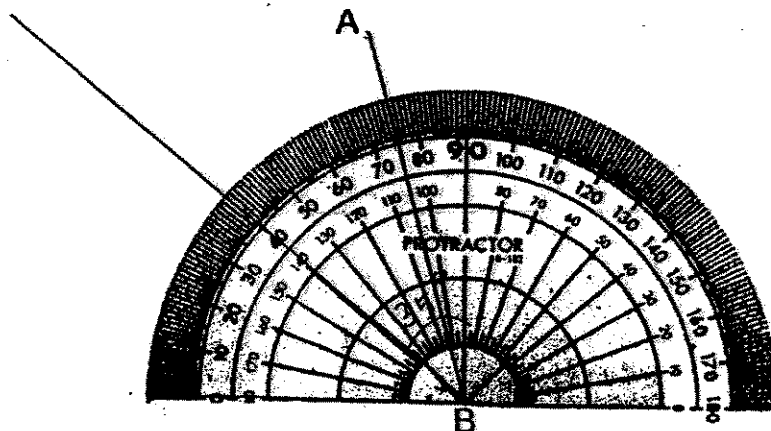
29. A bus started its journey at the time shown on the right. It took the bus 123 minutes to reach a town in Malaysia. At what time did the bus reach the town?
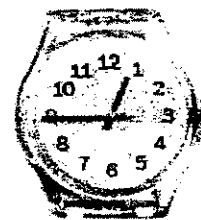
	p.m.

30. The model below shows the number of Singapore and Australian stamps found in a stamp album. How many more Australiian stamps were there?

Singapore stamps

Australian stamps

104 stamps

	stamps

31. In the figure shown below, not drawn to scale, O is the centre of the circle and AB, AC, BC and OC are straight lines.
Given that $\angle OCA = 55°$, find $\angle OBC$.

	o
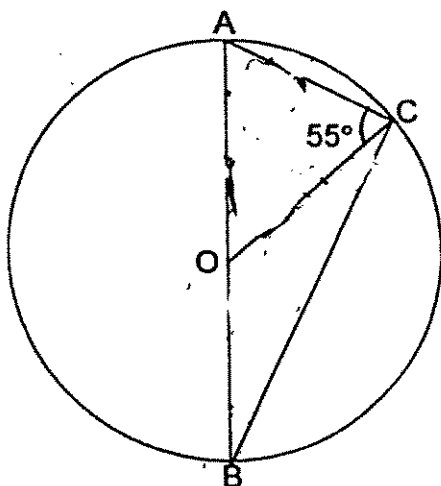
32. A man can travel from Town A to Town B in 5 hours if he drives at 40 km/h.
How long will he take if he increases his speed by n km/h?

	h

- page 11

33.   Mrs Koh only had 20¢ and 50¢ coins and her 20¢-coins added up to the same value as her 50¢-coins.   She realized she had just enough coins to exchange for $10 notes.   If she had more than $40 but less than $100, write down a possible number of coins that she could have.

coins

Junming had $6 with him when he went to school every morning.   The bar graph below shows the amount of money he had left at the end of each school day.   Study it carefully and answer Question 34.
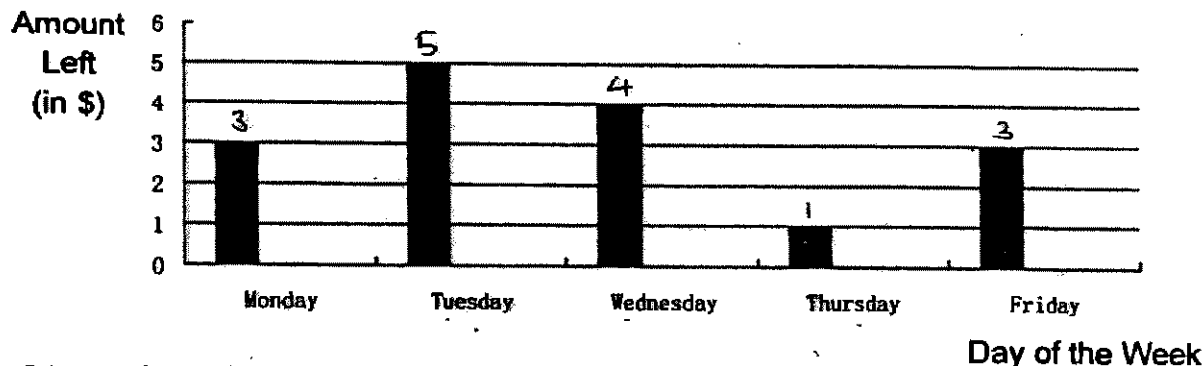
34.   On which day did Junming spend the least amount of his pocket money and how much was this amount?

day, $
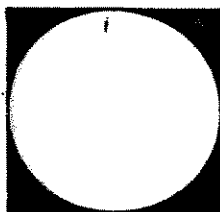
35.   The diagram above shows a circle that fits perfectly in a square. If the perimeter of the square is 2p cm, find the radius of the circle. (Express your answer in terms of p).

cm

- page 12 -

Section C (50 marks)

For questions 36 to 48, show your working clearly in the space provided for each question and write your answer in the spaces provided.   The number of marks available is shown in brackets [ ] at the end of each question or part-question.

36.   In the diagram shown below, the dotted line is the line of symmetry of an incomplete figure.   Complete it
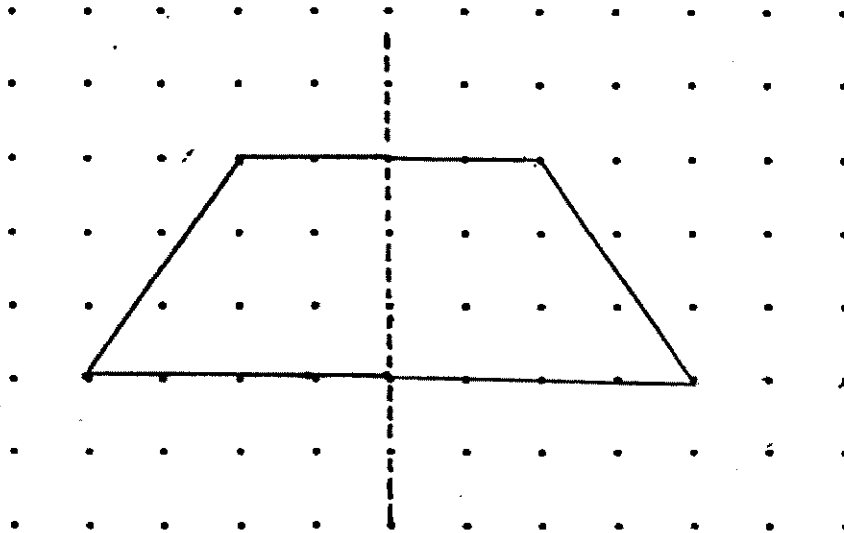
[2]

What is the special name given to the shape of the completed figure?

Answer: _____ [1]

37.   At first, the amount of money Sally had to that Molly had was 5 : 6 and Molly had $\frac{4}{5}$ as much as Mandy.   Sally and Molly were then given a total of $24 and the 3 girls had the same amount of money each finally.   Find the sum of money the 3 girls had at first.

Answer: _____ [3]

38. The following diagram is a tessellation of a unit shape.
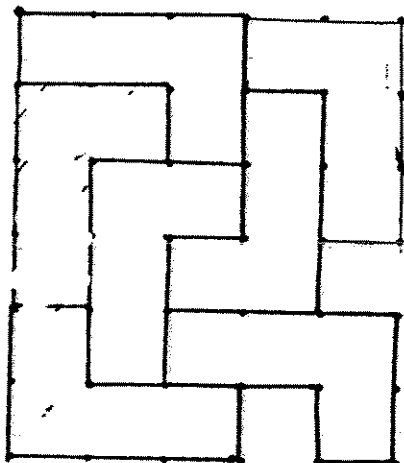
(a) Colour one of the unit shapes. [1]

(b) Using only the given dots, extend the tessellation by adding one more unit shape without flipping it. [2]
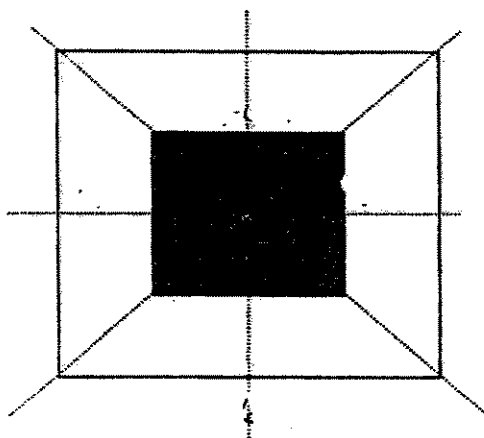
39. The diagram above shows a smaller square piece of paper pasted onto a larger one. The four dotted lines show the lines of symmetry. Given that the area of the smaller square is 64cm², what is the perimeter of the larger square?

Answer: _____ _____ [3]

- page 14 -

40.   The rectangle shown below is a tessellation of 4 of the same unit
       shape.   Each unit shape is formed by three identical squares.
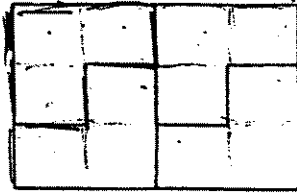
The perimeter of the rectangle is 42 cm.   Find:
(a)   the perimeter of each unit shape and
(b)   the area of the figure.

Answer: (a)_____ [2]

(b)_____ _____[2]

10 cm

3 cm
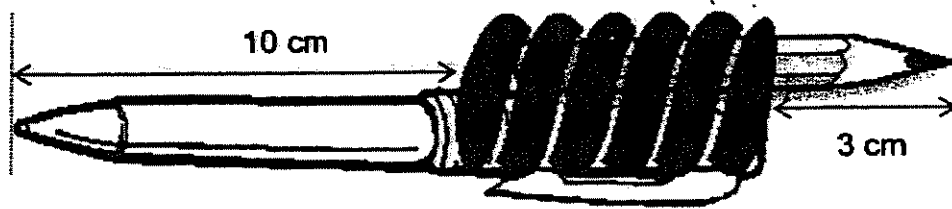
41.   Tom tied his pen to his pencil as shown in the diagram above to form a toy.   The length of the pencil is $\frac{3}{5}$ the length of the pen.

     What is the length of the toy?

Answer: _____ [4]

42.   During a sale, a departmental store offered a storewide discount of a certain fixed percentage.   Mrs Goh paid $16 for a dress during the sale and saved $4.

(a)   What is the percentage discount?

(b)   How much did Mr Goh save if he paid $20 for his purchases during the sale?

Answer: (a)_____ [2]

                                                 (b)_____[2]

43.   Using $\dfrac{3}{5}$ of his money, Derek could buy 8 similar pens.

If he was given an extra dollar, he could use it together with the rest of his money to buy another 6 such pens.
How much money had Derek?

Answer: _____ [4]

- page 18 -

44.   Two motorists, X and Y, travelled on the same route from Town A to Town B.   They each drove at a uniform speed but started their journey at a different time of the day.

The table below shows some details of their journey.

Motorist	Distance from Town A	Time	Distance From Town B	Time
X	60 km	13 25	60 km	15 55
Y	100 km	13 25	100 km	15 55

If Motorist X reached Town B at 16 25, find:

(a) the distance between the two towns and
(b) the speed at which Motorist Y was travelling.

Answer: (a)_____ [2]

(b)_____ [2]

45.   In a frog-leaping competition, for every two leaps made by a big frog, a
       small frog would have to leap thrice.
       In a 100-m race, the big frog leapt 50 times.
       (a)   How many times did the small frog leap?
       (b)   How many metres did the small frog move with each leap?

Answer: (a)_____ [2]

(b)_____[2]

- page 20 -
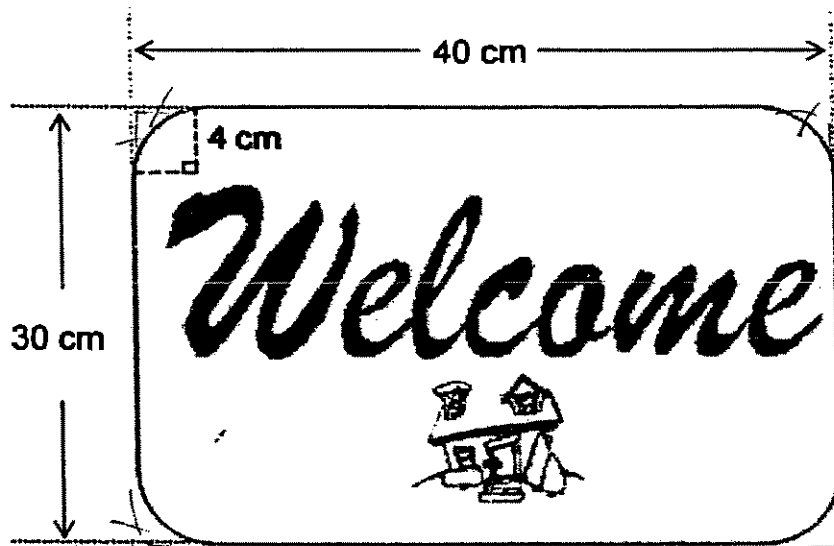
46. Each corner of the floor mat shown above is made up of a quadrant of radius 4 cm.   Taking π = 3.14, find the perimeter of the floor mat.

Answer: _____ . _____ . _____ . ___ **[4]**

47.   Ali, Bala and Krisnan went to a shopping centre and bought a present
        for their friend.   They agreed to share the cost of the present equally
        but Ali did not have any money with him that day and Bala did not bring
        enough to pay for his share.   As a result, the amount of money Bala
        paid to that paid by Krisnan was 1 : 4.
        The next day, Bala returned $12 to Krisnan.
        Find
        (a)   how much money Bala brought along with him to
                the shopping centre and
        (b)   the cost of the present.

        Answer: (a)_____ [3]

                (b)_____[2]

48.   Two different machines, A and B, were used together at the same
        time to print a book.
        It took two hours for the book to be printed.
        If only Machine A was used, it would have taken another 4 hours.
        How long would it take to print the same book if only Machine B was
        used?

Answer: _____ [5]

- End of Paper -

Please ensure that you have written
your answers clearly and transferred
them correctly onto the answer blanks.
Do check that you have included the
necessary unit of measurement.
Remember: Every Mark Counts!
Good Luck

ExamSutra 考试圣经
Answer Sheets
Maha Bodhi /Pri 6 SA2/2007 Maths

1)3	2)2	3)3	4)3	5)2	6)2
7)2	8)3	9)1	10)4	11)2	12)4
13)2	14)2	15)4	16)28	17)6	18)568.99

19)7.7cm   20)

21)86cm²   22)$4.20

23)20.3cm

24)192cm³

25)
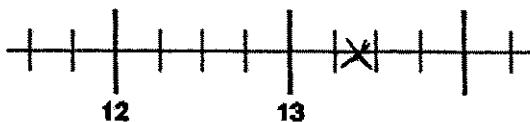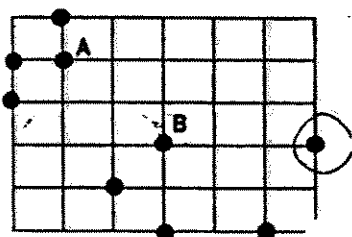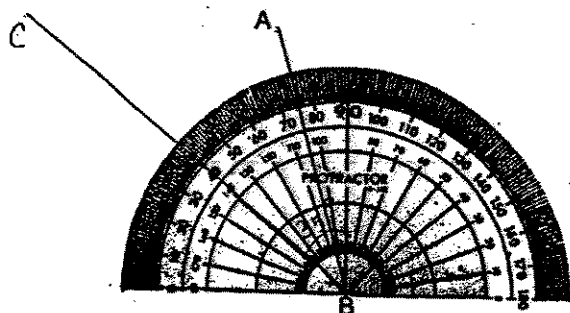
26)985   27)436.8

28)

29)2.48pm   30)26 stamps

31)35⁰   32)$\dfrac{200}{40+n}h$

33)210 coins   34)Tuesday, $1   35)0.25p cm

36)trapezium   37)$111   38)

39)64cm   40)a.24cm

40)b.108cm²   41)20.5cm

42)a.20%   42)b.$5

43)$20   44)a.420km

44)b.88km/h   45)a.75 times

45)b.1\frac{1}{3}$m   46)133.12cm

47)a.$18   47)b.$90   48)3 hours
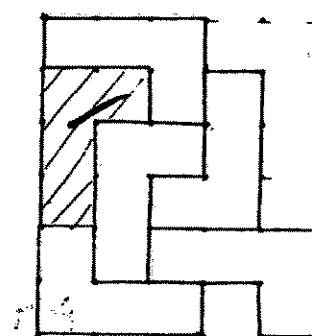
NAN HUA PRIMARY SCHOOL
CONTINUAL ASSESSMENT 1 – 2007
MATHEMATICS
PRIMARY 6

BOOKLET A

15 Questions

20 marks

Total Time for Booklet A & B: 2 h 15 min

INSTRUCTIONS TO CANDIDATES

DO NOT OPEN THE BOOKLET UNTIL YOU ARE TOLD TO DO SO.
FOLLOW ALL INSTRUCTIONS CAREFULLY.

ANSWER ALL QUESTIONS

Section	Maximum Marks	Actual Marks
A	20	
B + C	80	
Total	100	

Name: _____(   )

Class: Pr 6 _____

Date: 27 February 2007

Parent's Signature: _____

SECTION A (20 marks)

Questions **1** to **10** carry 1 mark each.
Questions **11** to **15** carry 2 marks each.
For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval on the Optical Answer Sheet (OAS).

1. What is the value of $\frac{1}{3} \div 4$?

   (1) $\frac{3}{4}$

   (2) $\frac{4}{3}$

   (3) $\frac{1}{12}$

   (4) $\frac{1}{7}$

2. What is the perimeter of a square of area 25 cm² ?

   (1)   5 cm

   (2)   10 cm

   (3)   20 cm

   (4)   100 cm

3. Amy and Betty shared 60 sweets in the ratio 2 : 3. How many more sweets did Betty have than Amy?

   (1)   12

   (2)   20

   (3)   30

   (4)   55

1

4.   In $12 + 24 \div 3 \times 2 = \boxed{}$, what is the missing number in the box?

      (1)   6

      (2)   24

      (3)   28

      (4)   40

5.   Express the sum of $\dfrac{1}{5}$ and $\dfrac{1}{10}$ as a decimal.

      (1)   0.05

      (2)   0.1

      (3)   0.15

      (4)   0.3

6.   What fraction of the figure is **not** shaded?
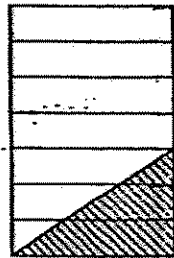
      (1) $\dfrac{3}{7}$

      (2) $\dfrac{4}{7}$

      (3) $\dfrac{3}{14}$

      (4) $\dfrac{11}{14}$

2

7. $10 \times \dfrac{1}{3} = 4 \times \dfrac{1}{3} + \dfrac{1}{3} + \dfrac{1}{3} + \boxed{} \times \dfrac{1}{3}$

    (1)   6
    (2)   2
    (3)   3
    (4)   4

8. $2 : 3 = \boxed{} : 6.$ What is the missing number in the box?

    (1)   9
    (2)   2
    (3)   3
    (4)   4

9. What is the area of the shaded triangle ADE?
    (The diagram is not drawn to scale.)
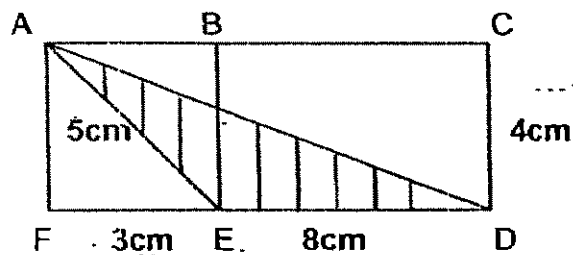
    (1) $(\dfrac{1}{2} \times 8 \times 5)$ cm²

    (2) $(\dfrac{1}{2} \times 11 \times 5)$ cm²

    (3) $(\dfrac{1}{2} \times 8 \times 4)$ cm²

    (4) $(\dfrac{1}{2} \times 11 \times 4)$ cm²

3

10. Alice is 12 years old now. Her mother is thrice as old as her. What will be their total age in 11 years' time?

    (1)   48

    (2)   58

    (3)   59

    (4)   70

11. Dave has $\frac{3}{7}$ as much money as Edwin. Edwin has $\frac{2}{3}$ as much money as Fred. Dave has $30 less than Fred. How much money does Edwin have?

    (1) $12

    (2) $28

    (3) $42

    (4) $70

Study the figure below. How many more squares must be shaded so that only 40% of the figure is left **unshaded**?

    (1)   6

    (2)   7

    (3)   10

    (4)   16

4
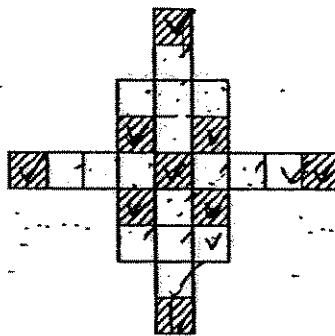
13. Carl spent $\frac{1}{5}$ of his salary on transport, $\frac{1}{2}$ of the remainder on food and saved the rest. If he earned $2 000, how much did he save?

   (1) $200

   (2) $300

   (3) $600

   (4) $800

14. The ratio of the price of an apple to that of an orange was 2 : 3. The price of an orange was $1.50. Mrs Lee bought 10 apples and 2 oranges. How much did she pay for the fruits?

   (1) $13.00

   (2) $17.00

   (3) $18.00

   (4) $19.50

15. There are 36 blue and yellow marbles in a box. $\frac{1}{4}$ of the marbles are yellow. 6 blue marbles are given away. What is the new ratio of the yellow marbles to blue marbles?

   (1)   1 : 9

   (2)   9 : 1

   (3)   3 : 7

   (4)   7 : 3

5

Nan Hua Primary School
Continual Assessment 1 – 2007
Mathematics - Primary 6

| BOOKLET B |

Name   : _____(   )   Class: Primary 6 _____

SECTION B

Mental Sums(5 marks)
Questions 16 to 20 carry 1 mark each. Listen carefully and write the answers in the blanks provided.

16. _____

17. _____ cm

18. $ _____

19. $ _____

20. _____

6

Questions 21 to 25 carry 1 mark each. Write your answers in the blanks provided.
For questions which require units, give your answers in the units stated.
(5 marks)

21. The sum of the page numbers of two facing pages of a book is 123.
    What are the two page numbers?

    Ans:_____ and _____

22. A machine can fill bottles with water at the rate of 15 bottles per minute.
    At this rate, how many bottles can it fill in 10 minutes?

    Ans:_____ bottles

23. A sum of money was divided between Darren and Justin in the ratio 2 : 3.
    What percentage of the money did Justin receive?

    Ans:_____ %

7

24. Arrange the followings in <u>ascending order</u>.

$$2 \,,\, \frac{3}{5} \,,\, \frac{2}{9} \,,\, \frac{12}{7}$$

Ans:_____

25. What percentage of the balls below are labelled "A" ?
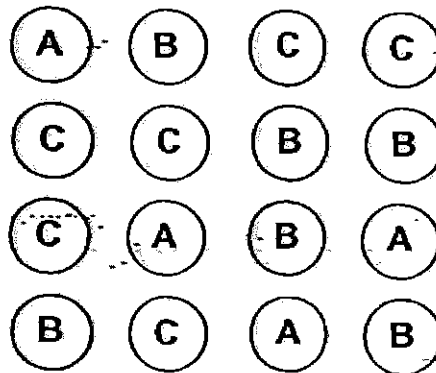
Ans:_____ %

8

Questions 26 to 35 carry 2 marks each. Show your workings clearly in the space below each question and write your answers in the blanks provided. For questions which require units, give your answers in the units stated. (20 marks)

26. Kim Seng has a mass of 24 kg. Ali has a mass of 56 kg.
     Express Kim Seng's mass as a percentage of their total mass.

Ans: _____ %

27. The figure below (not drawn to scale) is made up of 2 squares and a triangle.
     The areas of the squares are as shown. Find the area of the triangle.

100cm²

25cm²
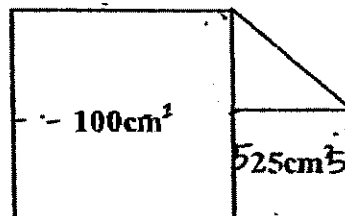
Ans: _____cm²

28. The charges for taking a taxi is shown below.
     How much will Robert have to pay for a journey of 2.5 km ?

	Charges
First 1 km	$2.50
Every additional 100 m or part thereof	$0.20

Ans: $_____

9

29. The figure below is made up of two squares of sides 10 cm and 20 cm. Find the **unshaded area** of the figure.

10 cm   20 cm
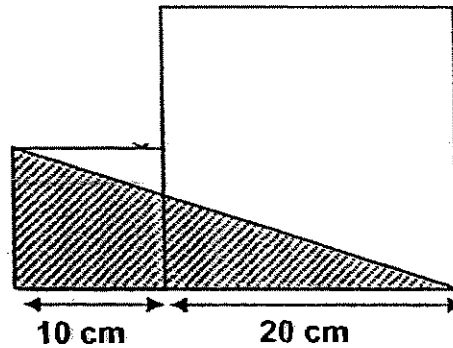
Ans: _____ cm^2

30. The number of girls at a party is $\frac{1}{2}$ that of the number of boys. If there are 75 girls, how many children are there at the party?

Ans: _____ children

10

31. In 2006, the ratio of the number of girls to the number of boys in the Science Club was 3 : 8. In 2007, another 24 girls joined the club and the ratio of the number of girls to the number of boys became 3 : 4.
How many children were there in the Science Club <u>at first</u> ?

Ans:_____ children

32. A shopkeeper gave away 2 bottles of free mineral water for every 5 boxes of chocolates bought. Each box of chocolates cost $16. If Mrs Goh received 8 bottles of free mineral water, how much did she spend on the chocolates?

Ans: $_____

33. For every $2 saved by Pauline, her mother gave her another $1.
How much must Pauline save if she had $216?

Ans: $_____

11

34. In the figure below, $\dfrac{5}{7}$ of Square X and $\dfrac{8}{9}$ of Square Y is shaded.

Find the ratio of the shaded area of Square X to the shaded area of Square Y. Give your answer in its simplest form.
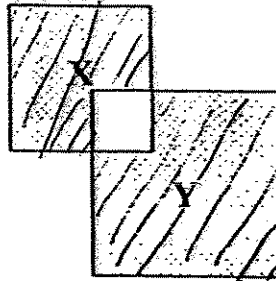
Ans: _____

35. The side of a square is 4 cm. The perimeter of an equilateral triangle is 48 cm. What is the ratio of the side of the equilateral triangle to the side of the square? Give your answer in its simplest form.
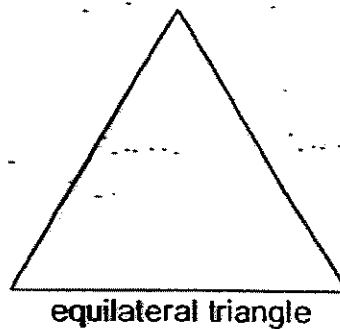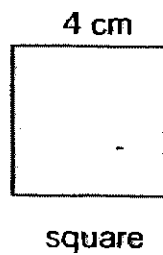
4 cm

square

equilateral triangle

Ans: _____

12

Section C (50 marks)
For questions 36 to 48, show your workings clearly in the space provided for each question and write your answers in the blanks provided.
The number of marks available is shown in the brackets [ ] at the end of each question or part-question.

36. Shirley paid $120 for 8 bags and 6 T-shirts. Each bag cost 3 times as much as a T-shirt. Find the difference in price between a bag and a T-shirt.

Answer: _____ [3]

37. A boy bought 20 stamps. Some were 50-cent stamps and some were 40-cent stamps. The cost of the 50-cent stamps was $4.60 more than the 40-cent stamps. How many 50-cent stamps did he buy ?

Answer: _____ [3]

13

38. Leon had $\frac{5}{11}$ of what Jim had.

Andy had $250 less than Jim.

If Andy had $\frac{1}{5}$ more than Leon, how much did Jim have?

Answer: _____ [3]

39. A kangaroo chases a rabbit which starts 135 m ahead of the kangaroo.
For every 4.7m leap of the kangaroo, the rabbit makes a 1.7m leap.
How many leaps will the kangaroo have to make to catch up the rabbit?

Answer: _____ [3]

14

40. A total of 36 kg of butter is packaged into boxes each containing 4 kg of butter. Each box is then sold for $1.85. What is the total selling price of all the boxes of butter ?

Answer: _____ [3]

41. The figure below shows two identical right-angled triangles overlapping each other. Find the area of the shaded part.
(The figure is not drawn to scale.)

Answer: _____ [3]

15
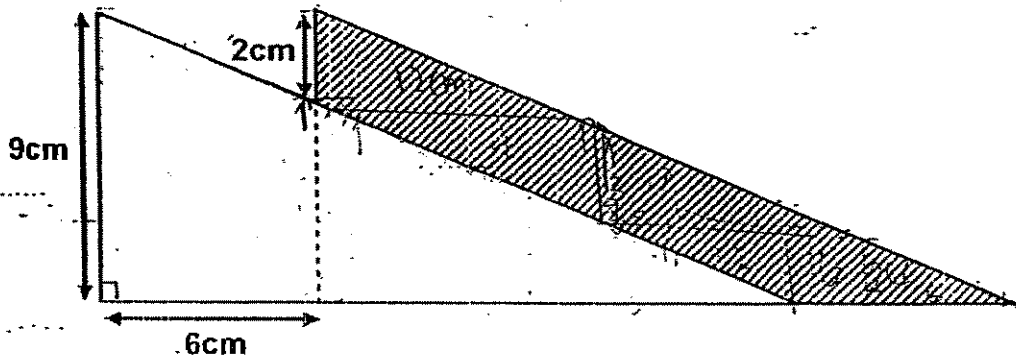
42. Each of the figures below is formed by arranging 3 similar rectangular cards in a certain way. Both figures have the same area of 81cm². Find the perimeter of each figure. (The length and breadth of each rectangular card are in whole numbers.) The figures are not drawn to scale.
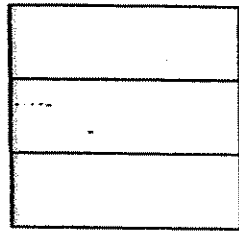
Figure 1

Figure 2

Answer: _____ [2]

_____ [2]

16
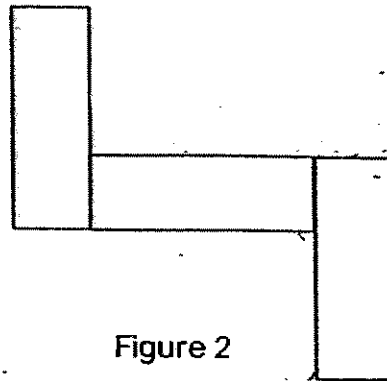
43. Amy bought 20 books and pens for $118.
     One week later, he sold 4 pens.
     Then he had the same number of pens and books left.
     Each book cost $1.00 more than each pen.
     How much did he pay for the books?

Answer: _____ [4]

44. John had 80% more money than Lily.
Kevin had half of what John had.
When Lily gave $320 to Kevin, both of them had the same amount of money.

(a) How much did Kevin have at first?
(b) If John gave 40% of his money to his parents, how much money had he left??

Answer: (a) _____ [2]

(b) _____ [2]

18

45. There were 720 apples and oranges in a big carton.
$\frac{1}{6}$ of the apples and $\frac{1}{3}$ of the oranges were from China.
The rest were from Australia.

If a total of 170 apples and oranges were from China,

(a) how many apples were in the big carton?

(b) how many oranges were from Australia?

Answer: (a)_____[3]

(b)_____'[2]

19

46. Study the following sequence of patterns consisting of triangles and circles. The first three patterns are shown below.

Pattern 1   **Pattern 2**   **Pattern 3**
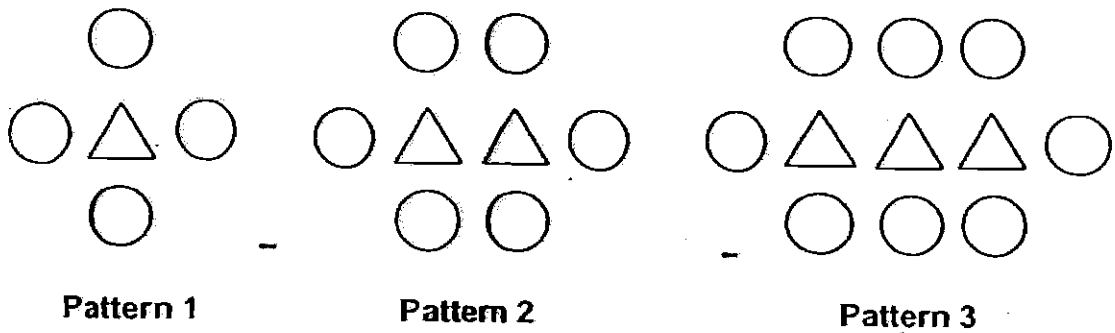
a) Complete the table below:

Pattern	1	2	3	4	5	6	7
Number of triangles	1	2	3	4	5	6	7
Number of circles	4	6	( )	10	12	( )	16

[1]

b) How many circles are there in the Pattern 15 ?

(b)_____[2]

c) Find the number of triangles in a pattern which has 40 circles.

(c)_____[2]

20

47. There were 81 passengers on a train.
The ratio of the number of adults to the number of children was 7 : 2.
Some boys alighted from the train and the ratio of the number of men to boys became 9 : 1.

a) If there were 27 women and 5 girls on the train, how many boys alighted from the train?
b) What was the new ratio of the number of adults to the number of children after the boys had alighted?

Answer: (a) _____

[3]

(b) _____

[2]

21

48.   A box has a total of 2 562 red, green and blue beads.
If $\dfrac{3}{7}$ of the red beads and 32 green beads are missing and 20 more blue beads
are bought, there will be an equal number of the three types of beads.
How many of each type of beads are there in the box?

Answer: _____[5]

End of Paper
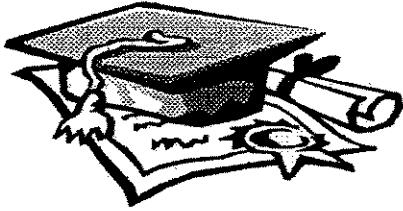
ANSWER SHEET

NAN HUA PRIMARY SCHOOL   – PRIMARY 6 MATHEMATICS   2007
Continual ~~SEMESTRAL~~ ASSESSMENT (1)

1. 3	34) 5:16	42) Fig.1→(9x2)+(3x6)
2. 3	35) 4:1	=18+18=36
3. 1	36) $8	a) The perimeter figure 1
4. 3	37) 14	is 36 cm.
5. 4	38) $550	Fig.2→(9x4)+(3x4)+(6x2)
6. 4	39) 45 leaps	=36+12+12
7. 4	40) $16.65	=36+24=60
8. 4	41) 48cm2	The perimeter of figure
9. 3		2 is 60 cm.
10. 4		
11. 2		43) 2unit+4=20
12. 1		2u→20-4=16
13. 4		1u→16/2=8
14. 1		1uit+4=8+4=12
15. 3		12 pens & 8 books
16. ¼		12pen + 8 books→$18
17. 36cm		12 units+8units+$18→$118
18. $30		20u→$(118-8)=110
19. $14		1u→110/20=5.50
20. 250		1u→5.50+1=6.50
21. 61 and 62		8 books→6.50x8=$52
22. 150 bottles		He paid $52.
23. 60%		
24. 2/9,3/5,12/7,2		
25. 25%		
26. 30%		
27. 12.5cm2		
28. $5.50		
29. 350cm2		
30. 225 children		
31. 88 children		
32. $320		
33. $144		

44) John　　Lily　　　Kevin　　John　　　-
　　180%　　100%　　　90%　　　180%

　　$\dfrac{100\%-90\%}{2}$

　　=5%
　5%-->$320
　1%-->$64
　k→90%-->90x64=$5760
　J→180%-->5760x2=11520

　$\dfrac{40}{100}$　x 11520=4608
　　11520-4608=6912
　a)Kevin had $5760 at first.
　b)John has $6912 left.

45) a) 420 apple
　　b) 722-420=300 oranges
　　　Australia→300/3x2=200 oranges.

46) a) 8,14
　　b) 32 circles
　　c) 19 triangles

47) a) 9
　　b) 7:1

48) 660

NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 1 – 2007
MATHEMATICS
PRIMARY 6

BOOKLET A

15 Questions

20 marks

Total Time for Booklet A & B: 2 h 15 min

INSTRUCTIONS TO CANDIDATES

DO NOT OPEN THE BOOKLET UNTIL YOU ARE TOLD TO DO SO.
FOLLOW ALL INSTRUCTIONS CAREFULLY.

ANSWER ALL QUESTIONS

Section	Maximum Marks	Actual Marks
A	20	
B + C	80 75	
Total	100 95	

Name: _____ (   )

Class: Pr 6 _____

Date: 8 May 2007

Parent's Signature: _____

1

<u>Section A (20 marks)</u>
Questions 1 to 10 carry 1 mark each.
Questions 11 to 15 carry 2 marks each.
For each question, four options are given. One of them is the correct answer.
Make your choice (1, 2, 3 or 4). Shade the correct oval on the Optical Answer
Sheet (OAS).

1. $\dfrac{3}{5} \div 7$ has the same value as _____ .

  (1) $\dfrac{3}{5} \times 7$

  (2) $\dfrac{5}{3} \times 7$

  (3) $\dfrac{3}{5} \times \dfrac{1}{7}$

  (4) $\dfrac{5}{3} \times \dfrac{1}{7}$

2. Express 80g as a decimal of 2kg.

  (1) 0.004
  (2) 0.008
  (3) 0.04
  (4) 0.08

3. Mrs Loh bought a car for \$89 035.
    What was the amount when rounded off to the <u>nearest \$100</u> ?

  (1) \$89 000
  (2) \$89 700
  (3) \$89 800
  (4) \$90 000

4. Simplify $15 - 3y + 4y - 8$

  (1) $7 + y$
  (2) $7 - y$
  (3) $7 + 7y$
  (4) $7 - 7y$

2

5. In a class, $\dfrac{-3}{7}$ of the pupils are girls and the rest are boys. Express the number of boys as a ratio of the number of girls.

(1) 4 : 7
(2) 7 : 4
(3) 4 : 3
(4) 3 : 4

6. Look at the diagram below. The sums of the numbers in each row, column and diagonal are equal. Find the value of A. (All boxes contain a number.)

A		6
	5	7
4		

(1) 9
(2) 2
(3) 3
(4) 8

7. A pupil gets 12 sums out of 50 sums correct. What percentage of the sums is wrong?

(1) 24%
(2) 40%
(3) 60%
(4) 76%

8. Find the value of $3\dfrac{2}{5} - 1\dfrac{1}{2}$

(1) $1\dfrac{9}{10}$

(2) $2\dfrac{1}{3}$

(3) $2\dfrac{1}{10}$

(4) $4\dfrac{9}{10}$

3

9.   Look at the figure below. The area of △ACF is equal to _____ .
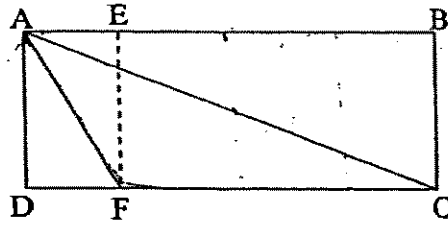
(1) $\frac{1}{2}$ of the area of rectangle AEFD.

(2) $\frac{1}{2}$ of the area of triangle ACD.

(3) $\frac{1}{2}$ of the area of rectangle ABCD.

(4) $\frac{1}{2}$ of the area of rectangle BCFE.

10.   Which figure cannot be the net of a cuboid?

(1)

(2)

(3)

(4)

4
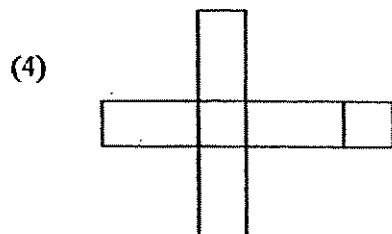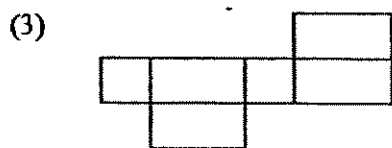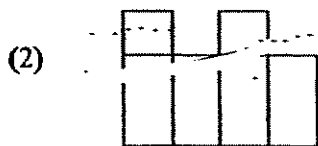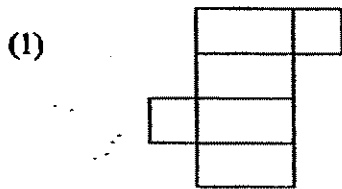
11. Mrs Lim spent 10% more than what Mrs Tan spent.
     If Mrs Lim spent $99, how much did Mrs Tan spend?

     (1) $89.10
     (2) $90.00
     (3) $108.00
     (4) $110.00

12. A motorist travelling at 60km/h took 5 hours to complete his journey.
     How much longer would he take to complete the same journey if he
     reduced his speed by 10km/h?

     (1)   1 hour
     (2)   2 hours
     (3)   6 hours
     (4)   25 hours   (   )

13. Which one of the following nets can be folded to form the pyramid shown?

        A   B   C   D

     (1)   A only
     (2)   B only
     (3)   A and B only
     (4)   C and D only

5
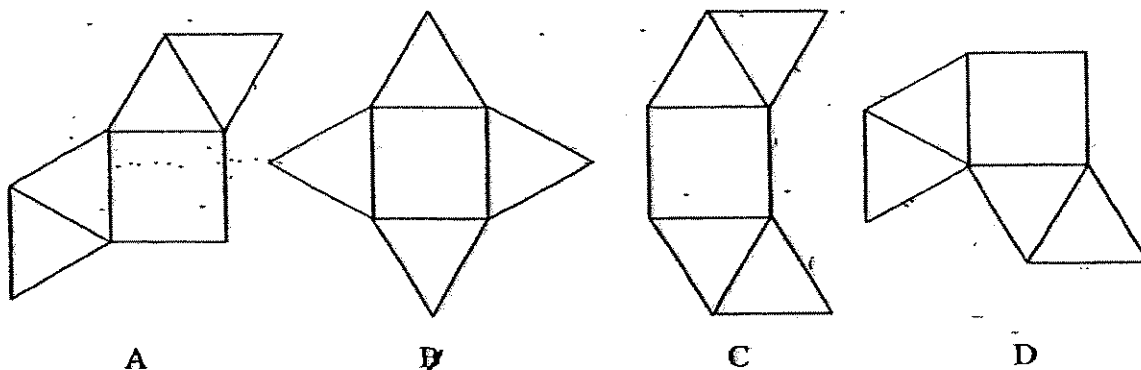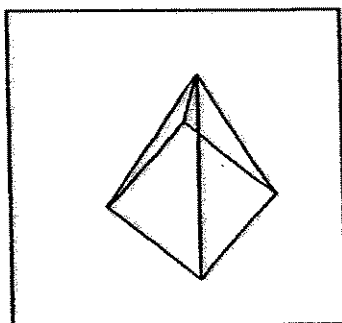
14. Tap A takes 10 minutes to fill a pail and Tap B takes 5 minutes to fill the same pail. How long will it take to fill the pail if both taps are turned on at the same time?

   (1)   15 minutes
   (2)   2 minutes
   (3) $3\frac{1}{3}$ minutes
   (4) $7\frac{1}{2}$ minutes

15. The four corners of a square piece of paper was folded in to form a diamond shape as shown below.
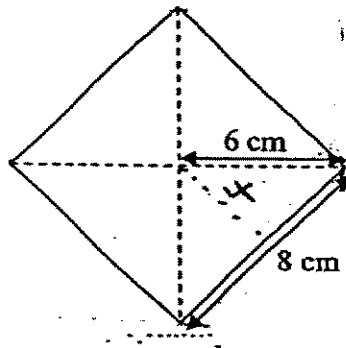
   What was the area of the square piece of paper before it was folded?

   (1)   48 cm²
   (2)   64 cm²
   (3)   96 cm²
   (4)   144 cm²

6

NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 1 – 2007
MATHEMATICS
PRIMARY 6

BOOKLET B

Name: _____ (   )   Class: Pr 6 _____   Marks : _____/80

Section B (30 marks)

Questions 16 to 25 carry 1 mark each. Write your answers in the blanks provided. For questions which require units, give your answers in the units stated. (10 marks)

16. $139 \times 11 = 139 + 139 \times \boxed{} \times 2$

The missing number in the box is _____.

Ans : _____

17.   What percentage of 2ℓ 400mℓ is 800 mℓ?

Ans : _____ %

18.   If the figure shown below is folded to make a cube, what is the letter opposite the letter 'P'?
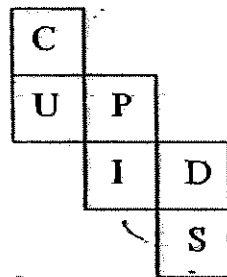
Ans : _____

19.   Fill in the missing decimal

Ans : _____

7
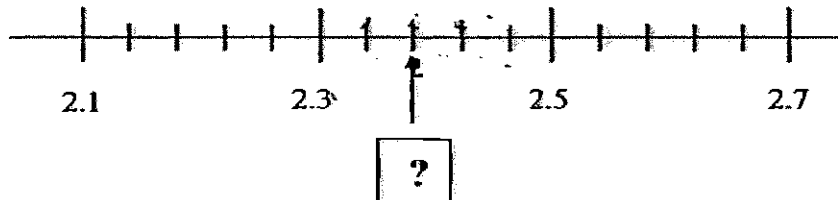
20. Amanda has n marbles. John has twice as many marbles as Amanda. How many marbles do they have altogether?

Ans : _____ marbles

21. In the figure below, how many more squares must be shaded to make the ratio of the number of shaded squares to the total number of squares 3 : 5 ?
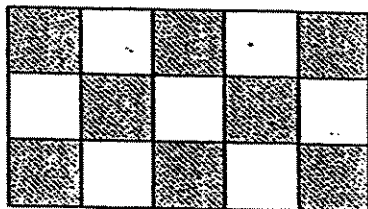
Ans : _____ more

22. Identify and shade the unit shape in the tessellation below.
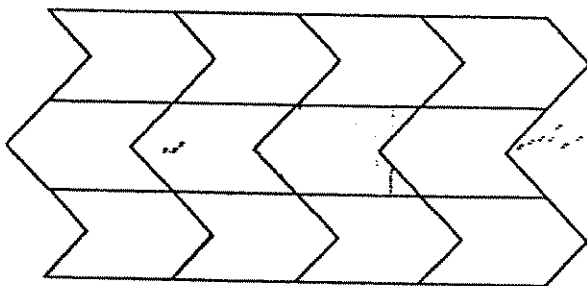
23. Express $3\frac{1}{5}$ hours in hours and minutes.

Ans : _____ h _____ min

24. What percentage of the figure is shaded?
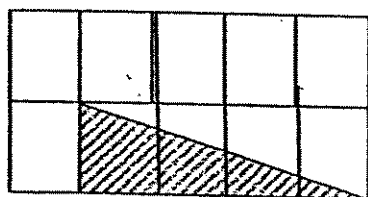
Ans : _____ %

25. If a = 3, find the value of $\frac{2a + 4}{5}$

Ans : _____

8

Questions 26 to 35 carry 2 marks each. Show your workings clearly in the space below each question and write your answers in the blanks provided. For questions which require units, give your answers in the units stated. **(20 marks)**

26. In the figure, AB and CD intersect at O. PO $\perp$ AB and QO $\perp$ CD.
   If $\angle AOD = 140°$, find $\angle x$. (The figure is not drawn to scale)
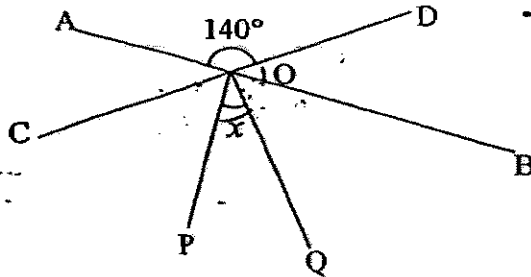
Ans : _____

27.
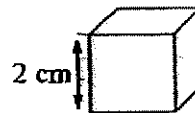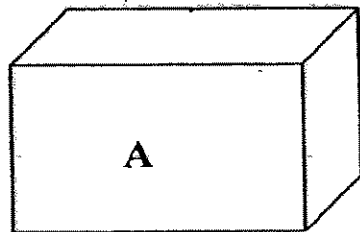
A is a block of wood 16cm long, 5cm wide and 11cm tall.

Nicholas wants to cut as many 2-cm cubes as possible from Block A.

What is the maximum number of cubes he can have?

Ans : _____ cubes

9

28.   Mr Lim deposits $8 000 in a bank which pays an interest of 4% per year.
        How much interest will he get in 9 months?

Ans : $ _____

29.   Palm trees are planted 10 m apart along a straight road.
        If the road is 250 m long, find the number of palm trees along
        this stretch of road.
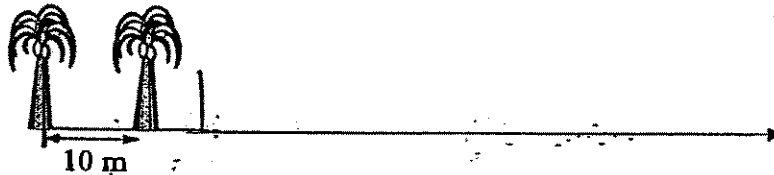
Ans : _____ palm trees

30.   The price of a computer was increased by 10% to $2 530. What was the price
        before the increase?

Ans : $ _____

10

31.   Stanley has some marbles.

$\frac{2}{7}$ of them are red and $\frac{3}{10}$ of the remainder are blue.

Find the ratio of the red marbles to the blue ones.
(Leave your answer in its simplest form)

Ans : _____

32.   A bus left Singapore at 11.45am and reached Malacca at 4.30pm on the same

day. How long was the journey in hours and minutes?

Ans : _____ h _____ min

33.
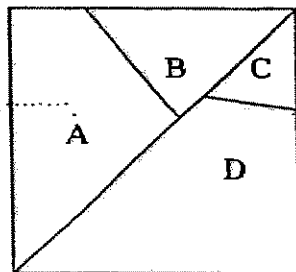
The square shown above is divided into 4 sections such that
Area A : Area B = 3 : 2
Area C : Area D = 1 : 5

What fraction of the whole figure is Area A?
Give your answer in the simplest form.

Ans : _____

11

34. The figure below, not drawn to scale, shows a rectangle divided into 6 parts. Each part has a different area. Find the total area of A and B.

| 28 cm² | 35 cm² | A |
| 16 cm² | B | 12 cm² |
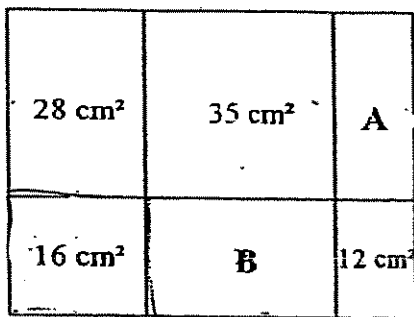
Ans : _____ cm²

35. Study the pattern carefully.

Pattern 1   Pattern 2   Pattern 3

The pattern above continues. What is the difference in the number of squares and triangles in Pattern 47?

Ans :_____

12

Section C (50 marks)

For questions 36 to 48, show your workings clearly in the space provided for each question and write your answers in the blanks provided.

The number of marks available is shown in brackets [   ] at the end of each question or part-question. Remember to include the units wherever possible.

36.   Alan and Benny had equal number of stamps. Alan lost 36 of his stamps. Then Benny has 5 times as many stamps as Alan. How many stamps had Alan at first?

Ans :_____[3m]

37. $\frac{3}{4}$ of Alice's salary is the same as $\frac{1}{2}$ of Betty's salary. If Alice earns $200 less than Betty, how much does Betty earn?

Ans : _____[3m]

13

38.   A group of children was asked how many siblings he/ she had.
       The bar chart below shows the result of the survey.
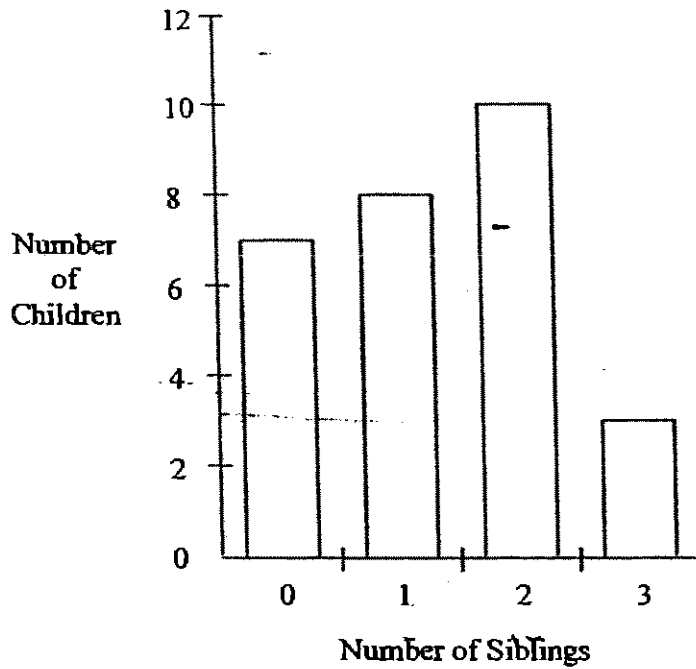
Number of Siblings

Find
(a)   the number of children involved in the survey.
(b)   the total number of siblings the children in the group have.

Ans : (a) _____[1m]

(b) _____[2m]

39   A water-melon cost $n.
      Mother paid $15 for 3 water-melons and 2.pinapples.
      What was the cost of
      (a)   3 water-melons?
      (b)   1 pineapple?

Ans : (a) _____[1m]

(b) _____[2m]

14

40. A tank, when $\frac{7}{8}$ filled with water, had a mass of 17kg. When $\frac{1}{2}$ filled, it had a mass of 11kg. What was the mass of the empty tank?

Ans : _____ [3m]

41. The fees for using a badminton court are as follows:

Time	Usual Rate
Before 5pm	$6 per hour
After 5pm	$10 per hour

To make it attractive, a discount of 10% was given for the use of the court before 5pm. Karen and Dawn booked the badminton court from 4 pm to 7 pm. If they shared the cost equally, how much did each of them pay?

Ans : _____ [3m]

15

42.   At 8.30am, a car started from Town A and travelled towards Town B at an average speed of 90km/h. At the same time, a bus travelled from Town B to Town A at an average speed of 60km/h. If the distance between Town A and Town B was 600km, what time would they pass each other?

Ans :_____[4m]

16

43. There were 20 questions in a Mathematics Quiz.
     5 marks were given for each correct answer.
     2 marks were deducted for each wrong answer.
     Cindy answered all the questions and scored 65 marks.
     How many questions did she answer correctly?

Ans : _____[4m]

17

44.   Alex, Benjamin and Charlie were given some funfair tickets to sell. Each ticket was sold for $7. Alex sold $\frac{2}{3}$ of the tickets. Benjamin and Charlie sold the remaining tickets in the ratio 1 : 2. Alex sold 40 more tickets than Charlie. How much money did the 3 boys collect altogether?

Ans :_____[4m]

18

45.
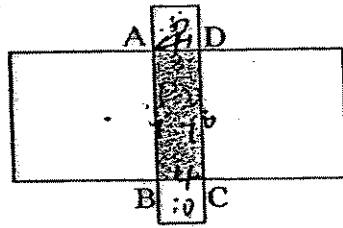
In the above figure, not drawn to scale, the shaded rectangle ABCD has a perimeter of 20cm. A square is constructed on each of its sides.
If the total area of the 4 squares is 80cm², find the area of the shaded rectangle ABCD.

Ans: _____ [5m]

19

46. At 8am, a van left Town A and travelled towards Town B at 70km/h.
    At the same time, a lorry left Town A and travelled in the opposite direction towards Town C. When the lorry reached Town C at 10am, the van was 10km away from Town B.
    If the distance between Town B and Town C was 270 km, what was the average speed of the lorry?

Ans : _____ [5m]

20

47.   Mr Tan earned a fixed monthly salary in the year 2005.
       In November, he spent 25% of his monthly salary.
       In December, he spent 40% more than what he spent in November.

   (a)   If his total expenditure for the 2 months was $960, what was his salary
          in November 2005?
   (b)   If Mr Tan received a 5% increase in pay in the year 2006, what would
          be his new monthly salary?

Ans: (a)_____[3m]

(b) _____[2m]

21

48.　Bernard and Emily wanted to buy a birthday present for their mother with their savings. The ratio of Bernard's savings to Emily's savings was 3 : 4. Bernard and Emily shared the cost of the birthday present in the ratio of 2 : 3. Bernard used $\frac{1}{2}$ of his savings to pay for his share. Emily, after paying for her share, had $21 left. How much did the present cost?

Ans : _____[5m]

End of Paper
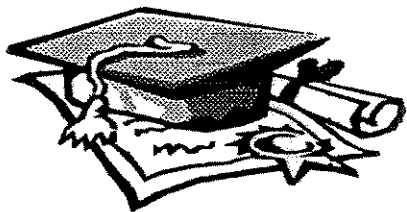
ANSWER SHEET

NAN HUA PRIMARY SCHOOL – PRIMARY 6 MATHEMATICS 2007
SEMESTRAL ASSESSMENT (1)

1. 3
2. 3
3. 2
4. 1
5. 3
6. 4
7. 4
8. 1
9. 4
10. 2
11. 2
12. 1
13. 3
14. 3
15. 4
16. 5
17. 33 1/3 %
18. 5
19. 2.38
20. 3u
21. 1
22.

23. 3h12min
24. 20%

25) 2
26) 40°
27) 80 cubes
28) 240
29) 26
30) $2300
31) 4:3
32) 4h45min
33) 3/10
34) 41cm2
35) 48

36) 4u → 36
   Alan → 5u → 36/4x5=45
   Alan had 45 stamps
   at first.

37) 600

38) 7+8+10+3=28
    7x0=0
    8x1=8
    2x10=20
    3x3=9
    8+20+9=29+8
    =37
    a) the total number
       of children in the
       survey is 28.
    b) the total number
       of siblings that
       the children have
       is 37.

39) water melon → $n
    3 water melon →
    $(nx3)=$3u
    Pineapple → $15-3n
                    ———
                     2
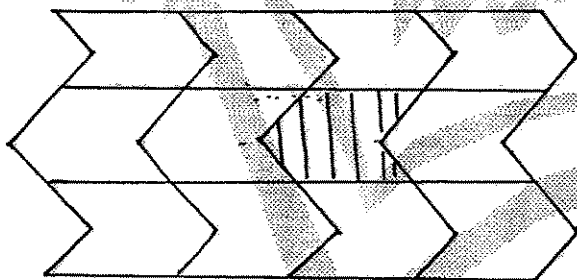
    a) 3 water melon cost
       $3n.
    b) 1 pineapple cost
       $(15-3n)
       ————————
          2

40) 3 units→6kg
    7 units→14kg
    17kg-14kg=3kg
    The mass of the empty tank is 3kg.

41) 90/100=$5.40
    4-5→$5.40   25.40
    5-6→$10   ───── =$12.70
    6-7→$10   2
    =$25.40   Each of them paid $12.70

42) 90km/h+60km/h
    =150km/h
    T→D
     600
    ─── =4h
    150
    8.30   12.30

         4h
    They would pass each other at 12.30 p.m.

43) total no.of questions→20
    1 correct→5 marks
    1 wrong→2 marks+5 marks
    =7 marks.
    Max.no of points→(20x5)=100
    Cindy →65
    Diff→100-65=35
    35/7=5
    Cindy has 5 wrongs
    Correct→20-5=15
    Cindy answered 15 questions correctly.

44) 4u→40   total amount collected→90x7
    1u→10   =630
    9u→9x10=90   The 36 boys collected $360
    1 ticket →$7   altogether.

45)

46) 60km/h

47) a) 1600
    b) 1680

48) $45

Index No.

NAN HUA PRIMARY SCHOOL
PRELIMINARY EXAMINATION 2007
PRIMARY 6

MATHEMATICS

(BOOKLET A)

Booklet A	/ 20
Booklet B	/ 80
TOTAL	/ 100

Name:_____ (   )

Class: Pr. 6_____

Date: 21 August 2007

Parent's Signature & Date

Total Time for booklets A and B: 2 hour 15 minutes

INSTRUCTION TO CANDIDATES

1. Write your Index Number in the boxes at the top right-hand corner.

2. Do not turn over the page until you are told to do so.

3. Follow all instructions carefully.

4. Answer all questions.

5. Shade your answers in the Optical Answer Sheet (OAS) provided.

Section A (20 marks)

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, 4 options are given. Only one of them is correct. Make your choice (1, 2, 3 or 4). Shade the correct oval in the optical answer sheet.

1.   4 hundreds, 3 tenths and 5 thousandths is _____

   (1) 400.305
   (2) 400.350
   (3) 430.005
   (4) 430.500

                                                        (   )

2.   What is the missing number in the box?

   $$18 \times \frac{2}{3} = 10 \times \frac{2}{3} + \frac{2}{3} + \frac{2}{3} + \frac{2}{3} \times \boxed{}$$

   (1) 8
   (2) 6
   (3) 5
   (4) 4

                                                        (_)

3.   Sally stacked some identical cubes in a corner of the room as shown in the diagram below.
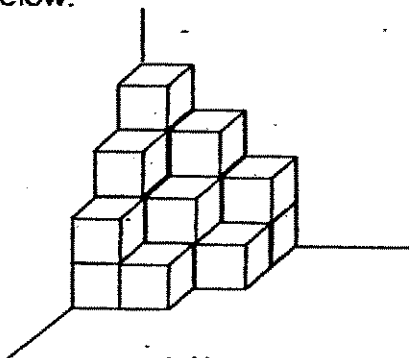
   How many cubes did Sally use?

   (1) 10
   (2) 11
   (3) 17
   (4) 18

                                                        (   )

1

4. Adrian has $q. Ben has thrice as much as Adrian. John has $4.
    How much do the three boys have altogether?

    (1) $q + 7
    (2) $q + 12
    (3) $3q + 4
    (4) $4q + 4

                                                                    (   )

5. Find the value of 6 + 12 ÷ 3 × 2

    (1) 3
    (2) 12
    (3) 14
    (4) 20

                                                                    (   )

6. A fruit seller sells apples at 4 for $1.50. How much do I have to pay for 48 apples?

    (1) $16.50
    (2) $18.00
    (3) $19.50
    (4) $21.00

                                                                    (   )

2

7.   Which of the following is __not__ the NET of a cube?

(1)

(2)

(3)

(4)

(   )
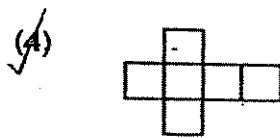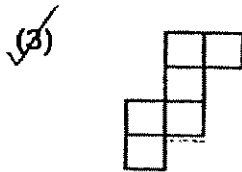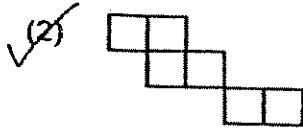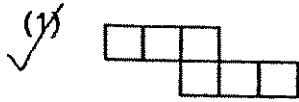
8.   Town A and Town B were 300 km apart. A car travelled from Town A to Town B at 65 km/h. A truck travelled from Town B to Town A at 55 km/h. They started at the same time. How long will it take them to meet?

(1) 2 h
(2) 2 h 15 min
(3) 2 h 30 min
(4) 2 h 45 min

(   )

3

9. Siewlian is standing at a point marked 'E' in the figure below. She is facing Golden Village theatre. Which place will she face when she turns 270° anti-clockwise?

Action City

Tagger   Mini Toons

Charles & Keith ———————— E —————— Candy Shop

Golden Village
Theatre

Ocean Pacific

Seven-Eleven
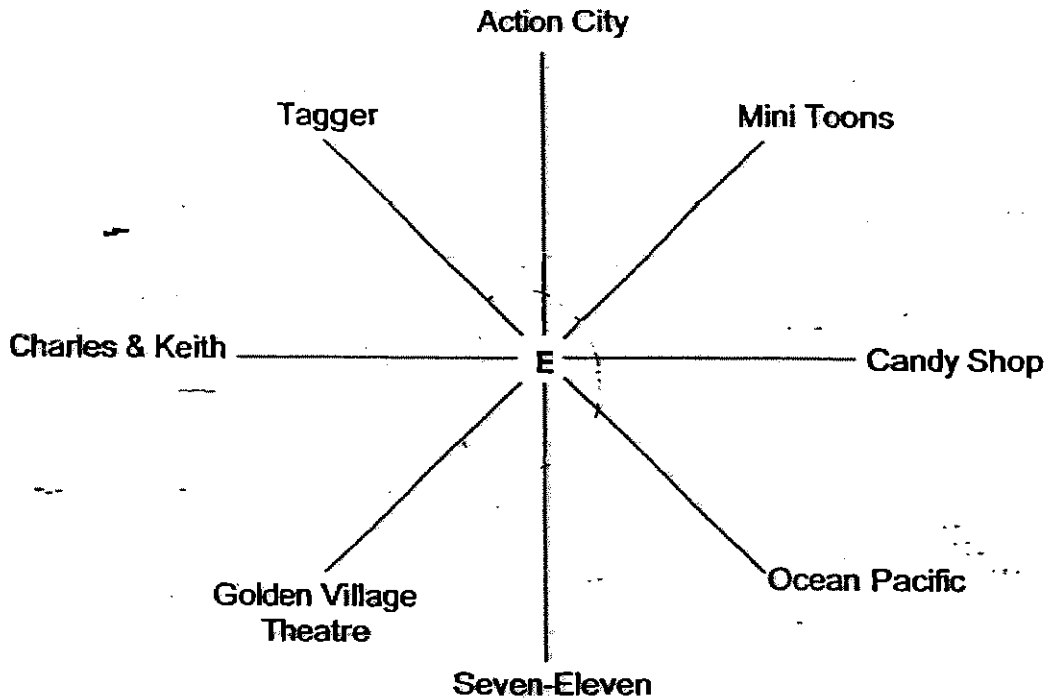
(1) Tagger
(2) Candy Shop
(3) Ocean Pacific
(4) Charles & Keith

(   )

10. $\dfrac{1}{5}$ of Robert's money is $\dfrac{3}{4}$ of Peter's money.
Find the ratio of Peter's money to the total sum of money.

(1) 1 : 9
(2) 4 : 15
(3) 4 : 19
(4) 15 : 9

(   )

4

11. Which figure(s) below has exactly 4 lines of symmetry?

A   B   C   D
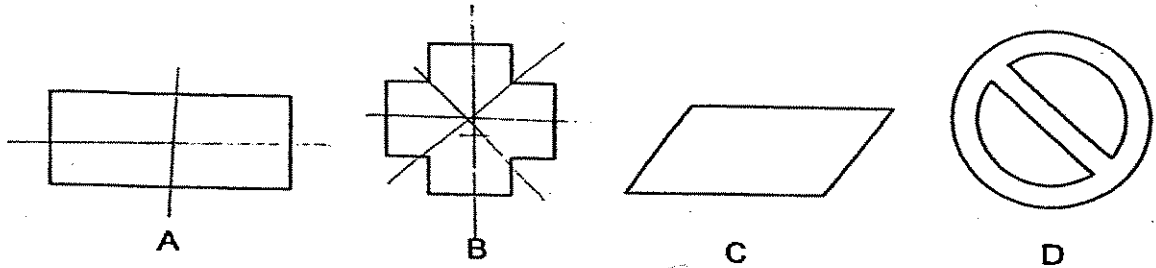
(1) B only
(2) B and C only
(3) A and D only
(4) A, C and D only

( )

12. The figure is made up of 3 different semi-circles. The ratio of PQ : QR is 2 : 1. Given that the length of PQ is 42 cm, find the perimeter of the shaded region.
[Take $\pi = \frac{22}{7}$]

P   Q   R
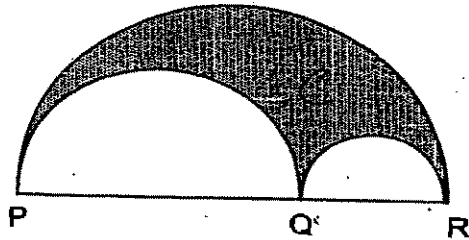
(1) 132 cm
(2) 174 cm
(3) 198 cm
(4) 306 cm

( )

5

13. After giving Tom $15 and spending another $10, Jack had as much money as Tom. How much more money than Tom did Jack have <u>at first</u>?

    (1) $5
    (2) $25
    (3) $30
    (4) $40

                                                                (   )

14. Jane had 50 more Singapore stamps than Malaysian stamps.
After giving away 30 stamps of each type, his collection of Malaysian stamps becomes 50% of his collection of Singapore stamps.
Find the total number of stamps he has left.

    (1) 110
    (2) 150
    (3) 160
    (4) 170

                                                                (   )

15. A lorry left Town X for Town Y at 12 p.m., travelling at an average speed of 50 km/h. At 3 p.m., a car also left Town X for Town Y. If the car took 2 hours to catch up with the lorry, find the average speed of the car.

    (1) 75 km/h
    (2) 115 km/h
    (3) 125 km/h
    (4) 150 km/h

                                                                 (   )

NAN HUA PRIMARY SCHOOL

PRIMARY SIX PRELIMINARY EXAMINATION 2007

MATHEMATICS

BOOKLET B

Marks: | / 80

Name : _____ (/ -)

Class :   P 6 ____

SECTION B

Questions 16 to 25 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

16.
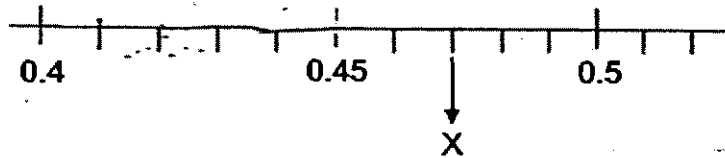
What is the value of the point marked 'X'?
(Give your answer as a decimal)

Answer : _____

17. ❖ + ♣ = 28

❖ + ♥ = 29

♣ + ⊞ = 24

What is the value of ♥ ?

Answer : _____

7

18. Simplify   4a − 5 + a + 9

Answer : _____

19. ABCD is a square. The length of AC is 14 cm. What is the area of the square?
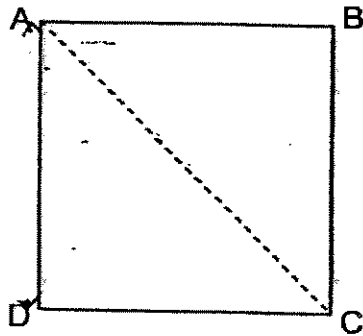
Answer : _____ cm²

20. The average of 7 consecutive numbers is 84. Write down the smallest and the biggest numbers.

Answer : Smallest _____

Biggest _____

21. Sue had $15 and she wanted to buy a few mugs.
    If each mug costs $1.20, what was the maximum number of mugs she could buy?

Answer : _____ mugs

8

What is the maximum numbe

22. A wooden block is 81 cm long, 50 cm wide and 30 cm tall. ~~How many 3-cm~~ wooden cubes ~~can~~ be cut from the wooden block?
    that

    Answer : _____ ~~3-cm cubes~~

23. A movie started at 11.37 p.m. and lasted for 170 minutes. What time will the movie end? Give your answer in 24-hour clock.

    Answer: _____

24. Sammy cycled for $1\frac{1}{2}$ hour at 20 km/h and then ran for 30 minutes at 9 km/h. Find his average speed for the whole journey.

    Answer : _____ km/h

25. Alice and Benny cycled away from each other at 20 km/h and 18 km/h respectively. How far apart would they be after 20 minutes?

    Answer : _____ km

9

Questions 26 to 35 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

26. Theresa made a necklace of 54 beads. The beads are of two different shapes and form a repeated pattern. The picture below shows part of her necklace. How many ⬡ beads does she need?
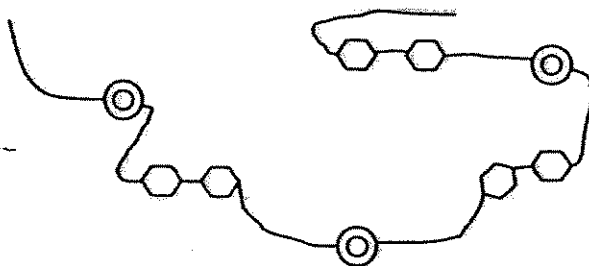
Answer : _____ ⬡ beads [2]

27. Tap A can fill a tank in 4 minutes. Tap B can fill the same tank in 6 minutes. If both taps are turned on at the same time, how long will it take to fill the tank?

Answer : _____ minutes [2]

10

28. The pie chart below shows how Jonathan spent his time on a particular day.

Time Spent in a Day
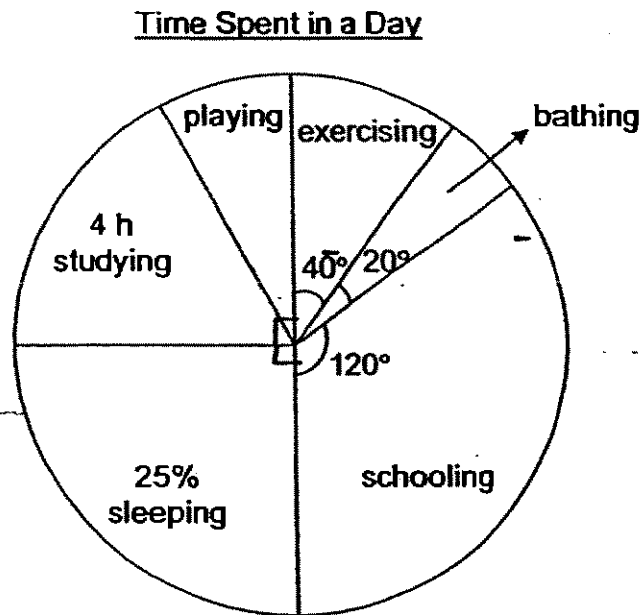
How many hours did he spend playing?

Answer :_____h [2]

29. Joyce, who worked as a salesgirl, was paid $$p$ an hour on weekdays and Saturday, and $12 an hour on Sunday.
How much was she paid for working 6 hours a day for a week? (including Sunday)

Answer : $_____ [2]

11

30. Martin arranges some coins to form a square with 13 rows and 13 columns. He then rearranges the coins to form two squares of different sizes. Given that each row of the bigger square has 7 more coins than the smaller square, find the number of coins in each row of each new square formed.

Answer : New square 1 _____[1]

New square 2 _____[1]

31. A rectangular tank, 20 cm long, 25 cm wide and 10 cm tall, is $\frac{3}{4}$ filled with water. When 4 litres of water was poured into the tank, some water overflowed and was collected in an empty rectangular container. Find the height of the water level in the container.

Base area
250 cm²

Answer : _____ cm [2]

12

32. Draw 5 more unit shapes on the grid provided to show tessellation. [2]

33. The figure below shows a rectangle divided into 4 parts A, B, C and D. The areas of A, B and C are in the ratio 8 : 21 : 4 respectively. C is a square with an area of 16 cm². Find the area of rectangle D.

A	B
C.	D

Answer : _____ cm² [2]

13

34. The table shows the number of books borrowed by pupils in a certain week from the school library.

Number of books	0	1	2	3	4	5
Number of children	12	6	5	3	4	6

What was the total number of books borrowed by the pupils?

Answer : _____ books [2]

35. At a fruit stall, the ratio of the number of apples to the number of pears is 5 : 8. If 60% of the pears are sold, what percentage of the apples must be sold so that there will be an equal number of apples and pears left?

Answer : _____ % [2]

14

Section C

For questions 36 to 48, show your working clearly in the space provided for each question and write your answers in the spaces provided.
The number of marks available is show in brackets [ ] at the end of each question or part-question.
(50 marks)

---

36. In the figure, not drawn to scale, find

      (a) $\angle x$

      (b) $\angle y$

      (c) $\angle z$

Answer : (a) $\angle x =$ _____ [1]

          (b) $\angle y =$ _____ [1]

          (c) $\angle z =$ _____ [1]

15

37.   In the figure below, AE is a straight line of 8 cm. B is the mid-point of AC, C is the mid-point of AE, and D is the mid-point of CE. Find the perimeter of the shaded figure.

[Take π = 3.14]

Answer : _____ [3]

16

38. In the figure, not drawn to scale, ABC and DBF are straight lines. Point O is the centre of the circle.
Find
(a) ∠AEO
(b) ∠AOF

Answer : (a) _____[1]

(b) _____[2]

17

39. There were 10 word problems in a Mathematics Competition.
     5 points were awarded for each correct answer and 3 points
     were deducted for each incorrect answer.
     If Amy answered all 10 word problems and scored 26 points,
     how many word problems did she answer correctly?

Answer : _____ [3]

40. Mr. Lee worked out a saving plan for Janet.
     For every $4 Janet saved, he would top up $2 into her bank account.
     After some time, the amount saved in Janet's account was $252.
     How much of this amount was contributed by Mr. Lee?

Answer : _____ [3]

18

41. Tap A would fill the tank with water at the rate of 20 ℓ / min. Tap B would drain the water from the tank at 15 ℓ / min.

At first, tap A was turned on for 6 minutes. Then tap B was turned on.
Another ten minutes later, how much water was there in the tank?
(give your answer in litres)

Tap A

Tap B

Answer : _____[3]

19

42. Benjamin spent $\frac{3}{7}$ of his money on 6 toys and 6 erasers, and $\frac{1}{4}$ of the remainder on 10 cards. Each eraser cost $\frac{1}{7}$ as much as a toy. Each card cost $0.30 more than an eraser.

How much money did Benjamin spend on each toy?

Answer : _____[4]

20

43. Town E and Town F were 240 km apart. Jason left Town E at 9.00 a.m. traveling
     at an average speed of 60 km/h. Karen left Town E some time later than Jason
     and overtook him at 11 a.m. Karen's traveling speed was 90 km/h.
     (a) At what time did Karen leave Town E?
     (b) How long had Karen rested when Jason finally reached Town F?

Answer : (a)_____[2]

(b)_____[2]

21

44. The graph below shows the number of story books read by the pupils in a class.

a) What was the total number of pupils in the class?

b) What fraction of the pupils in the class read more than 3 story books?

c) What is the total number of story books read?

Answer: (a) _____[1]

(b) _____[1]

(c) _____[2]

45. The figure is made up of 3 rectangles and 2 squares. The bigger square has an area of 144 cm².
(a) Find area of the shaded rectangle.
(b) If area of rectangle Z is 5 times area of small square, find area of rectangle W.

Answer : (a) _____ [2]

(b) _____ [3]

23

46. The figure below is made up of 2 semi-circular arcs and 2 quarter arcs. A triangle ABC is drawn in the bigger semicircle. AB is 28 cm. O is the mid-point of AB. CD is 10 cm.
Find
(a) the perimeter of the figure
(b) the area of the shaded parts
[Take $\pi = \dfrac{22}{7}$]

Answer : (a) _____ [2]

(b) _____ [3]

47. Study the patterns formed by black and white tiles below and answer the following questions.

Pattern 1   Pattern 2   Pattern 3   Pattern 4

a) Using the series of patterns above, complete the table below.

Pattern	No. of Black Tiles	No. of White Tiles	Total No. of Tiles
1	3	1	4
2	6	3	9
3	9	7	16
4	12	13	25
5			

[3 marks]

b) Find the total number of tiles in Pattern 10.

Answer : _____ [2]

25

48. There are some oranges in 3 boxes, A, B and C. 40% of the number of oranges in Box A is equal to 25% of the number of oranges in Box B. The number of oranges in Box C is $\frac{1}{3}$ of the number of oranges in Box B.

   a) Express the number of oranges in Box C as a fraction of the number of oranges in Box A.

   b) If $\frac{1}{2}$ of the oranges in Box B are taken out and placed in Box C, there will be 36 oranges left in Box B. How many oranges are there in Box C?

   c) What is the total number of oranges?

Answer : (a)_____[2]

(b) _____[2]

(c) _____[1]

— the end —

26

ANSWER SHEET

NAN HUA PRIMARY SCHOOL – PRIMARY 6 MATHEMATICS 2007
SEMESTRAL ASSESSMENT (2)

1. 1
2. 2
3. 4
4. 4
5. 3
6. 2
7. 2
8. 3
9. 1
10. 3
11. 1
12. 3
13. 4
14. 2
15. 3
16. 0.4
17. 13
18. 5a+4
19. 98cm2
20. Smallest 81 Biggest 87
21. 12 mugs
22. 4320
23. 0227
24. 17 ¼ km/h
25. 12 2/3 km
26. 36
27. 2 2/5 min
28. 2
29. $(72+36p)
30. 1) 12
    2) 5
31. 11cm

32) . . . . . .

33) 4units→16
    1unit→4
    D→4x10 ½
       4x 2/2=42

34) (1x6)+(2x5)+(3x3)+(4x4)+(5x6)
    =6+10+9+16+30=71 books

35) apples:pears
       5   :   8
      25   : 40
    60% sold, 40% left
            40/100x4=16
    25-16=9
    %=9/25x100=36%
    The percentage is 36%.

36) a) ∠x=68°
    b) ∠y=180°-93=67°
    c) ∠z=180-(67+68)=45°

37) 3.14x2
    ──── =3.14
      2
    Per=6.28x3+2+3.14
    =18.84+5.14
    =23.98cm
    The perimeter of the shaded figure is 23.98 cm.

38) a) 180-39   141
       ────── = ─── =70½°
         2   2
    a) ∠AEO is 70½°
    b) 28+28=116°
    b) ∠AOF is 116°

39) She answered 7 word problem correctly.

40) $4x40=$160+8=$168
    $2x40=$80+4=$84
    $84 was contributed by Mr.Lee.

41) Tap A   Tap B
    1 min→20 ι   1 min→50 ι
    6 min→20x6   20 ι →15=5 ι
         =120 ι   10 min→10x5=50 ι

    There was 170 ι of water in the tank.

42) He spend $3.50 on each toy.

43) a) 9.40am
    b) 40 min

44) a) 40
    b) 10+8=18
       18/40=9/20
       The fraction is 9/20
    c)) (1x6)+(2x7)+(3x9)+(4x10)+(5x8)
       =6+14+27+40+40
       =20+27+80=47+80=127

45) shaded =12x4=48 cm2
    W=20x12=240cm2
    a) The area is 48 cm2
    b) The area of rectangle W is 240 cm2

46) a) The perimeter is 88 cm
    b) The area is 266 cm2

47) Pattern 10=11x11=121

48) a) The fraction is 8/15
    b) There are 24 oranges in Box C
    c) The total number is 141.

---end---

NANYANG PRIMARY SCHOOL
FIRST CONTINUAL ASSESSMENT 2007
MATHEMATICS
PRIMARY SIX

Name: _____(   )   Marks :   /100

Class: Primary 6 (   )   Parent's Signature:

Date: 2 March 2007   _____

Duration: 2 hours 15 minutes

Booklet A

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.

(20 marks)

---

1   What is the missing number in the box?

6 420 103   =   6 000 000   +   400 000   +   ☐   +   100   +   3

    (1)   20

    (2)   200

    (3)   2000

    (4)   20 000

1

2   What is the value of the digit 6 in 831.296?

    (1)   6 ones

    (2)   6 tenths

    (3)   6 hundredths

    (4)   6 thousandths

3   A piece of string is 3 m long. Three 40-cm pieces are cut from it. What is the length of the remaining string?

    (1)   0.4 m

    (2)   1.2 m

    (3)   1.8 m

    (4)   2.6 m

4   In a primary school, 32% of the pupils travel to school by car. 20% of the pupils walk to school and the rest of the pupils travel to school by bus. If 288 more pupils travel to school by bus than by car, what is the total number of pupils in the school?

    (1)   600

    (2)   900

    (3)   1800

    (4)   2400

5. Mandy is *w* years old. Linda is 3 times as old as Mandy. Sally is 4 years older than Linda. How old was Sally 5 years ago?

   (1)   (3*w* + 9) years old

   (2)   (3*w* – 1) years old

   (3)   (*w* + 12) years old

   (4)   (*w* + 2) years old

6 Ahmad is standing at the point marked D in the figure below. He is facing southwest. In which direction will he face if he turns 135° clockwise?

   (1)   East

   (2)   North

   (3)   Southeast

   (4)   West

3

7   How many pairs of parallel lines are there in the figure?

(1)   5

(2)   6

(3)   8

(4)   4

8   There are 40 identical squares shown below. 17 squares are shaded. How many **more** squares must be shaded so that the dotted line PQ is the line of symmetry for the shaded figure?

(1)   5

(2)   2

(3)   3

(4)   4

4

9   Which of the following is **not** the net of a solid?

(1)   (2)

(3)   (4)

10   The figure shows the net of a solid.

Which of the following solids can be formed by the above net?

(1)   (2)

(3)   (4)

5

11   The average mass of 3 boxes is 10 kg. Boxes A and B have the same

mass. The mass of Box C is $\frac{1}{2}$ of the mass of Box A. What is the mass

of Box C?

(1)   2 kg

(2)   6 kg

(3)   10 kg

(4)   12 kg

12   Edgar's salary is $\frac{3}{4}$ of Julian's salary. Julian's salary is $\frac{1}{2}$ of Thalia's

salary.   Express Thalia's salary as a fraction of Edgar's salary.

(1) $\frac{3}{8}$

(2) $\frac{2}{3}$

(3) $\frac{3}{2}$

(4) $\frac{8}{3}$

13   Bag A weighs $4\frac{4}{5}$ kg. Bag B is $\frac{3}{8}$ kg heavier than Bag A. What is the

total mass of the two bags?

(1)   4.425 kg

(2)   5.175 kg

(3)   9.225 kg

(4)   9.975 kg

6

14   80% of the marbles in a container were blue and the rest of the marbles were red. Julian removed 25% of the blue marbles and $\frac{5}{8}$ of the red marbles from the container. What is the ratio of the number of red marbles to the number of blue marbles left in the container?

(1)   1 : 8

(2)   3 : 22

(3)   5 : 8

(4)   5 : 22

15   Mrs Lim wanted to make a drink for her friends. The table below shows the proportion of water and orange syrup used.

Amount of water in litres	8	16	32
Amount of orange syrup in litres	2	4	8

Using the same proportion, what is the volume of the drink she would make if she used 52 litres of water?

(1)   28 *l*

(2)   65 *l*

(3)   80 *l*

(4)   98 *l*

7

Name: _____ (   ) – Class: Pr 6 (   )

P6 CA1 2007

Booklet B

Questions **16** to **25** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

---

16 Find the value of $4 + 5 \times 8 - (8 + 7) \div 3$

Ans: _____

---

17 Express 60 km 14 m in metres.

Ans: _____ m

---

18 The mass of a tin is 350.0 g when rounded off to one decimal place. What could the lowest mass of the tin be?

Ans: _____ g

8

19 Mary spilled some coffee on her results slip as shown below. Part of her English and Science marks cannot be seen.

RESULTS SLIP	
Subject	**Score**
Mathematics	80
Chinese	90
English	7
Science	8

Her average score for the four subjects is 78. How many marks did she score for Science?

Ans: _____

---

20 Which of the following is **not** a net of a cube?

A   B   C   D

Ans: _____

---

21 How many more faces does Solid A have than Solid B?

5   3

Solid A   Solid B

Ans: _____

9

22   Arrange the following fractions from the largest to the smallest:

$$\frac{18}{100}, \quad \frac{1}{8}, \quad \frac{9}{49}, \quad \frac{4}{25}$$

Ans: _____

---

23   Tom and Teck Meng spent 1 h 40 min on a project. They started working on the project at 12.35 p.m. At what time did they complete the project?

Ans: _____

---

24   Mrs Koh's monthly income is $3000. She spends $1740 a month and saves the rest. What percentage of her income does she save each month?

Ans: _____ %

---

25   The length of a rectangle is 12p cm. Its breadth is $\frac{1}{4}$ of its length. What is the perimeter of the rectangle in terms of p in its simplest form?

Ans: _____ cm

10

Questions 26 to 35 carry 2 marks each.   Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(20 marks)

26   A bottle completely filled with cooking oil weighs 1 kg. The mass of the empty bottle is 250 g. What will the mass of the bottle be when it is half-filled with oil?

Ans: _____ g

27   Paul had $8.50 in his piggy bank. The coins were a mixture of 10-cent coins and 20-cent coins. There were 10 more 10-cent coins than 20-cent coins. How many coins were there in the piggy bank?

Ans: _____

11

28   A survey was conducted to find out the favourite fruit of a group of pupils. The table below shows the results.

How many **more** girls than boys took part in the survey?

Ans: _____

29   What is the missing number in the box?

$$\frac{7}{12} + \frac{9}{10} \div 3 \times \frac{5}{18} = \boxed{} \times \frac{1}{6}$$
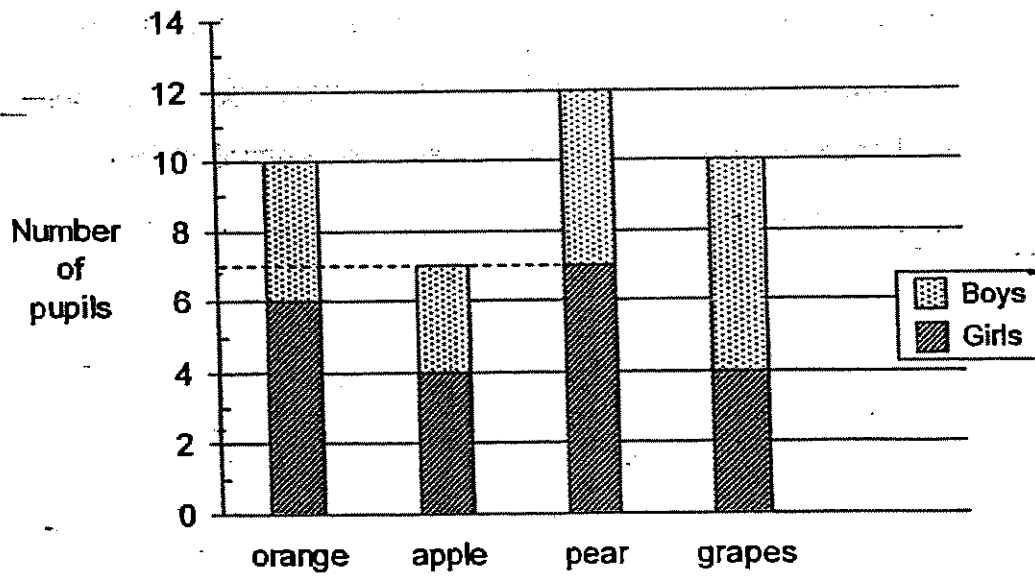
Ans: _____

12

30   Miranda has 5 times as many stickers as Jean. The number of stickers that Ariel has is $\frac{2}{3}$ of the number of stickers that Miranda has. What is the ratio of the number of stickers that Jean has to the number of stickers that Ariel has? Give your answer in its simplest form.

Ans: _____

31   Sean and Nick shared some marbles in the ratio 1 : 2. When Nick gave some marbles to Sean, the ratio of the number of marbles that Sean had to the number of marbles that Nick had became 5 : 4. If Nick had 36 marbles in the end, how many marbles did Nick give to Sean?

Ans: _____

13

32   Bryan and John shared $27 in a certain ratio. If each boy received $4 more, the ratio of the amount of money that Bryan had to the amount of money that John had became 3 : 4. How much money did Bryan have at first?

Ans: $ _____

33   Muthu had *m* stamps. Ryan had half the number of stamps that Muthu had but 8 stamps less than what Mingyao had. How many stamps did the 3 boys have altogether? Express your answer in terms of *m* in its simplest form.

Ans: _____

14

34   The figure below shows a square and four identical isosceles triangles. Find the total area of the figure.
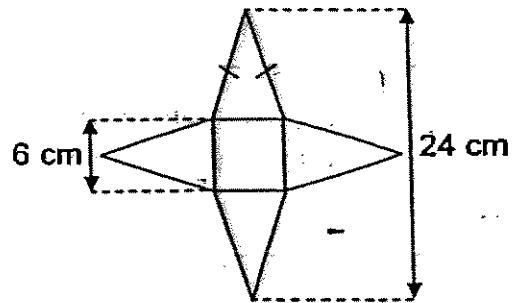
Ans: _____ cm²

35   The pattern in the box below shows part of a tessellation. Extend the tessellation by drawing **four** more unit shapes in the space provided within the box.

15
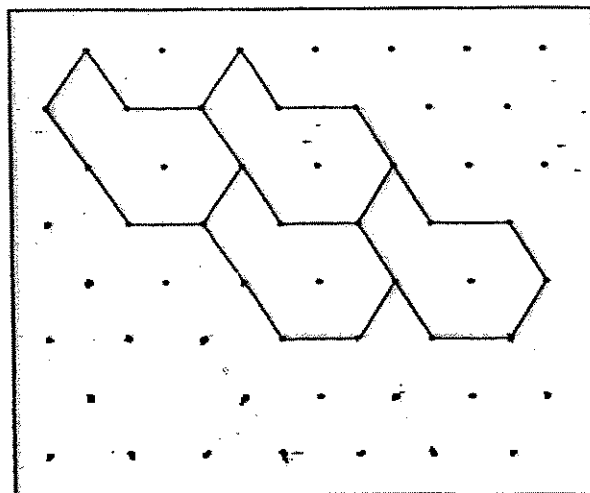
Name: _____(   )   Class: Pr 6 (   )

P6 CA1 2007

For questions 36 to 48, show your working clearly in the space provided for each question and write your answers in the spaces provided.
The number of marks available is shown in brackets [   ] at the end of each question or part-question.

(50 marks)

---

36   Mr Loh bought 5 durians and 3 pineapples for \$2y. Each durian cost \$5.

    a) Find the cost of 1 pineapple. Express your answer in terms of y in its simplest form.

    b) Given that $y = 17$, how much would it cost to buy 6 pineapples?

Ans: (a) _____ [1]

          (b) _____ [2]

16

37   Machine X can fill 180 bottles with detergent in 1 hour while Machine Y can fill twice the number of bottles in $1\frac{1}{2}$ h.

   (a)   Which machine works at a faster rate?

   (b)   How long will it take both machines, working together, to fill up 1050 bottles?

Ans: (a) _____ [1]

       (b) _____ [2]

38   Gerald used 60% of his money to buy 12 buns and 3 curry-puffs. Each curry-puff cost twice as much as a bun. How many curry puffs could he buy with the rest of his money?

Ans: _____ [3]

39   A blouse and 3 T-shirts cost $128. 4 blouses and 5 T-shirts cost $323. How much did Mrs Tang have to pay for 21 T-shirts?

Ans: _____ [3]

---

40   In the figure below, ABCD is a square and BE is a straight line. The size of ∠EBC is three times the size of ∠BEC. Find ∠DCE.

Ans: _____ [3]

18
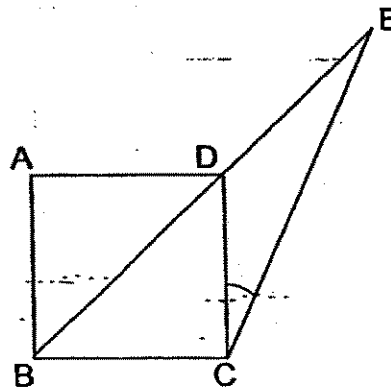
41   **(a)**   The figure below shows the net of a solid. Name the solid that can be formed from the net.
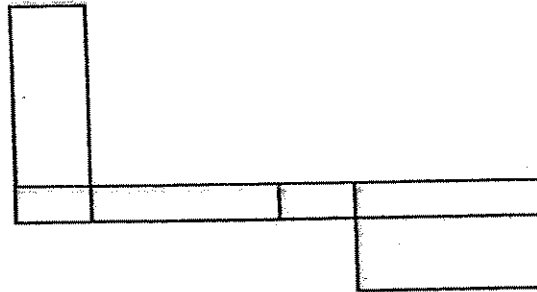
Ans: _____ [1]

(b)   Nets A and B can be used to form the same cube. Draw the correct dot patterns on the 2 blank faces of Net B. [2]

<u>Net A</u>   <u>Net B</u>

19
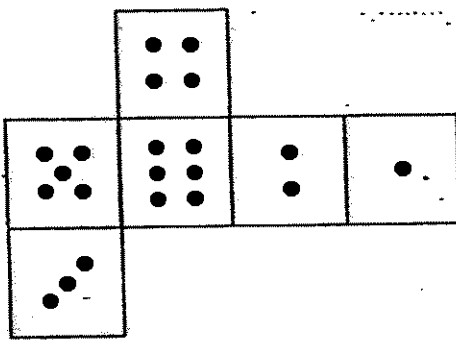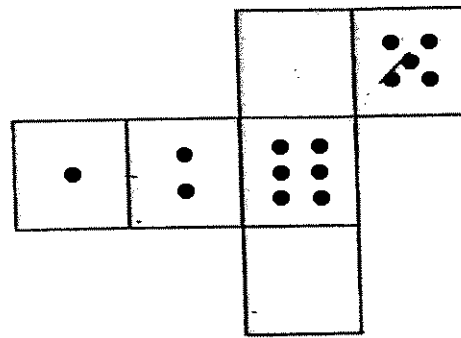
42   Alice had 2.8 m of wire. She wanted to make a design of 4 squares in a loop as shown below. However, the wire was not long enough.

0.8 m
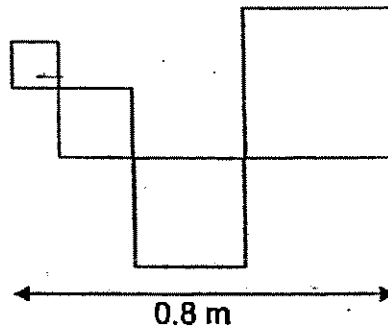
(a)   How much more wire did Alice need?

(b)   If 1 m of the wire cost $2.20, how much would it cost to make 2 similar designs?

Ans: (a) _____ [2]

(b) _____ [2]

20

43 Mr Lim earned $3 for each gift hamper he sold. For every 12 hampers sold, he earned an extra $5.

(a) How much money would Mr Lim earn if he sold 85 hampers?

(b) How many hampers must he sell in order to earn $194?

Ans: (a) _____ [2]

(b) _____ [2]

21

44   The graph below shows Miss Lim's monthly savings from April to October. Her average savings from March to September is $200.
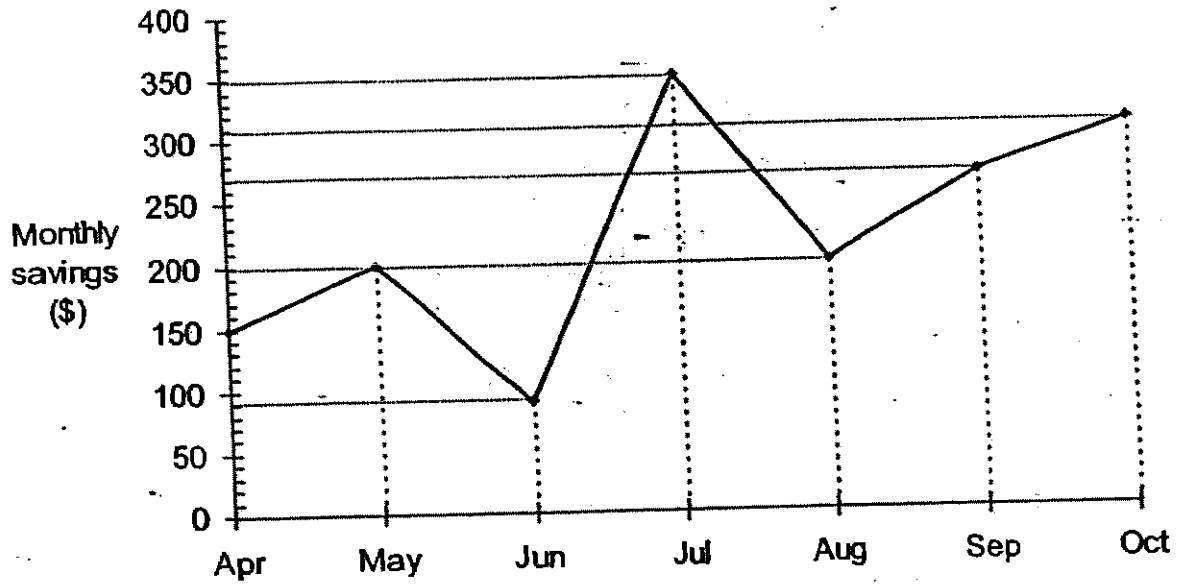
(a) How much did Miss Lim save in March?

(b) Express her savings in July as a fraction of her total savings from May to August. Give your answer in its simplest form.

Ans: (a) _____ [2]

      (b) _____ [2]

45   The solid below is made up of 2-cm cubes.
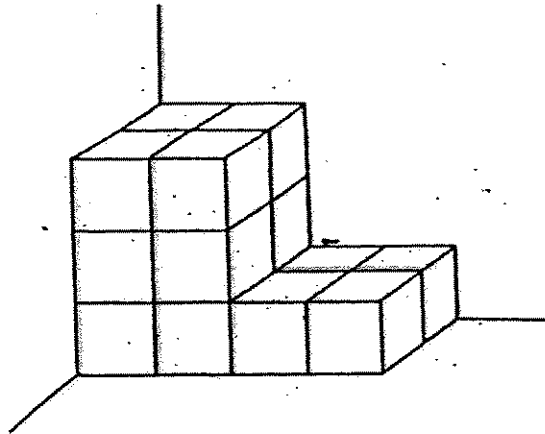
(a)   Find the volume of the solid.

(b)   Find the total surface area of the solid.

(c)   The whole solid is dropped into blue paint. After it is removed, it is cut
        up into 2-cm cubes. How many cubes will have only two faces painted
        blue?

Ans: (a) _____ [2]

          (b) _____ [2]

          (c) _____ [1]

23

46   The figure below shows a multi-level pyramid.   Each level is formed by identical small triangles.
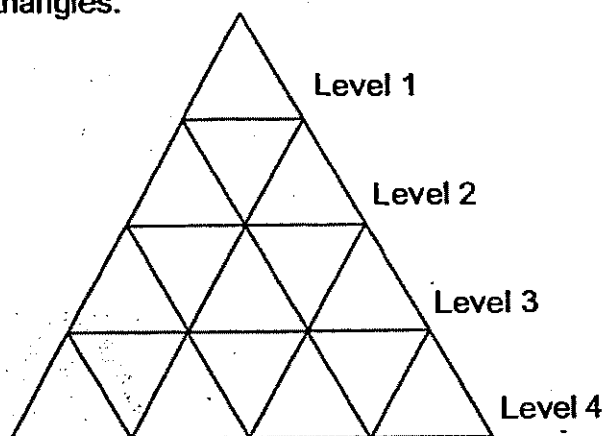
(a)   How many small triangles are needed to form Level 6?

(b)   If 1137 small triangles are needed to form a particular level, which level would that be?

(c)   What is the total number of small triangles that are needed to build a 25-level pyramid?

Ans: (a) _____ [1]

(b) Level _____ [2]

(c) _____ [2]

24

47   In the figure below, 3 squares A, B and C overlap to form Squares X and Y. The perimeter of Square X is 20 cm. $\dfrac{5}{16}$ of Square B is shaded. The areas of Squares A, B and C are in the ratio 4 : 25 : 9 respectively. Find the total perimeter of the unshaded regions.
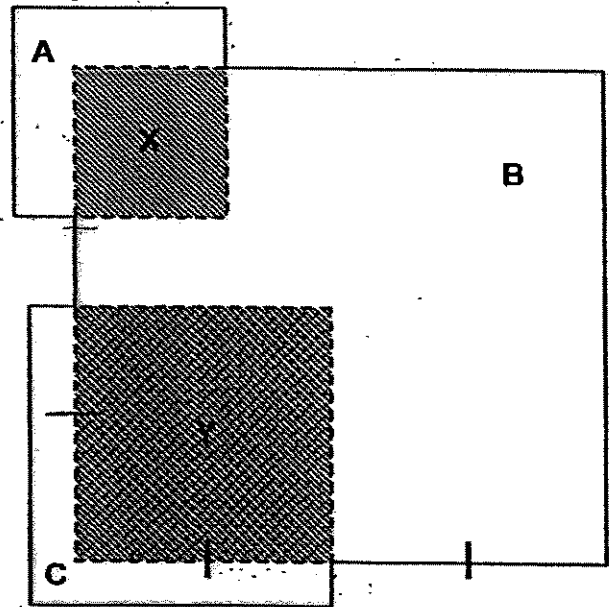
Ans: _____ [5]

48   Joshua had $\frac{2}{3}$ as many game cards as Nat. After Joshua bought another 20 game cards and Nat lost 29 game cards, Joshua now has $\frac{4}{5}$ as many game cards as Nat. How many game cards did Nat have at first?

Ans: _____ [5]

END OF PAPER

Setters: Mdm Magdalene Wee
            Mrs Lily Lee

ANSWER SHEET

NANYANG PRIMARY SCHOOL – PRIMARY 6 MATHEMTICS 2007
CONTINUAL ASSESSMENT (1)

1. 4
2. 4
3. 3
4. 3
5. 2
6. 2
7. 4
8. 1
9. 2
10. 3
11. 2
12. 4
13. 4
14. 1
15. 2
16. 39
17. 600f4
18. 349.95
19. 68 marks
20. D
21. 2 more faces
22. 9/49, 18/100, 4/25, 1/8
23. 2.15pm
24. 42%
25. 32p cm

26) 1kg-250g=1000-250g
    =750g
    750÷2=375g
    375g+250g=625g

27) Alternative:10 x10=100 (more)
    $8.50-$1=$7.50
    (1set of 10 +20)=30
    $7.50÷$0.30
    =25 (no.of sets)
    25x2=50
    50+10=60 coins.

28) (6+7+4)-(4+3+5+6)=3 more girl

29) 4

30) 3:10

31) 4 units→36
    1 unit →9
    2 units→18
Alternative S:N
               5:4
          36÷4=9
          5x9=45
          45+36=81
          81÷3=27
          27x2=54
          54-36=18 marbles.

32) $27+$4+$4=$35
    3 units+4 units=7 units
    $35÷7=$5
    $5x3=$15
    $15-$4=$11

33) (2m+8)stamps

34) 24cm-6cm=18cm
    18cm÷2=9cm (height of △)
    6cmx6cm=36cm2 (area of □)
    ½ x9cmx6cm=27cm2(area of △)
    27cmx4=108cm2(total area of △)
    108cm2+36cm2=144cm2

35)
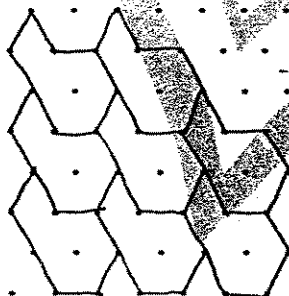
36) a) $(2y-25)
         ―――――
           3
    b) $17x2=$34
       $34-$25=$9(3p)
       $9x2=$18

37) a) Machine Y
    b) 2 ½ hours

38) 6 curry puffs

39) 1B+3TS→$128
    4B+12TS→$512
    4B+5TS→$323
    $512-$323=$189(7TS)
    7TS→$189
    21TS→$567

40) 90÷2=45° (∠BDC)(∠DBC)
    180°-45° =135° (∠CDE)
    45° ÷3=15°
    180° -(15° +135°)
    =30°

41) a) cuboid
    b)

42) a) 0.8m×4=3.2m(amount of wire needed)
       3.2m-2.8m=0.4m
    b) 3.2m×2=6.4m
       1m→$2.20
       0.2m→$0.44
       6.4m→$14.08

43) a) 85÷21=7R1
       7x$5=$35
       $3x85=$255
       $255+$35=$290

43)
  b) 12x$3=$36
     $36+$5=$41 (12 hampers)
     194÷41=4R $30
     12x4=48
     30÷3=10
     48+10=58 hampers

44)a) $200x4=$1400 (march to September)
     $(150+200+90+350+200+270)
     =$1260
     $1400-$1260=$140
  b) $(200+90+350+200)=$840
     $350/$840=5/12

45)a) 2cmx2cmx2cm=8cm3
     8cm3x16=128cm3
  b) 2cmx2cm=4cm2
     44x4cm2=176cm2
  c) 6 cubes

46)a) 11 small triangles
  b) Level 569
  c) 625 small triangles

47)1m

48)324 game cards
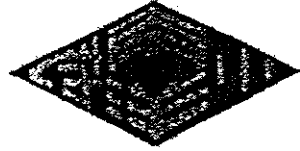
NANYANG PRIMARY SCHOOL

FIRST SEMESTRAL EXAMINATION 2007

PRIMARY 6

MATHEMATICS

DURATION: 2 HOURS 15 MINUTES

Booklet A	/ 20
Booklet B	/ 30
	/ 50

Total:	/ 100

Name: _____ (   )

Class: Primary 6 (   )

Date: 10 May 2007

Parent's Signature: _____

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

FOLLOW ALL INSTRUCTIONS CAREFULLY.

ANSWER ALL QUESTIONS.

Booklet A

Questions 1 to 10 carry 1 mark each.   Questions 11 to 15 carry 2 marks each.
For each question, four options are given.   One of them is the correct answer.
Make your choice (1, 2, 3 or 4).   Shade the oval (1, 2, 3 or 4) on the Optical
Answer Sheet.

(20 marks)

---

1   A family participated in a night tour around Singapore which ended at
    01 30. The night tour lasted $2\frac{1}{4}$ h. At what time did the night tour start?

    (1)   03 45

    (2)   11 15

    (3)   23 05

    (4)   23 15

2   Mark and Simon are 11 and 15 years old respectively. What will be the
    ratio of Simon's age to Mark's age 9 years later?

    (1)   3 : 1

    (2)   5 : 6

    (3)   6 : 5

    (4)   15 : 11

3   Express 100 m as a percentage of 2.5 km.

    (1)   4%

    (2)   25%

    (3)   40%

    (4)   250%

1

4   What is 19% of $380?

   (1) $5.00

   (2) $50.00

   (3) $72.20

   (4) $722.00

5   Miss Chan can type 35 words per minute. At this rate, how long will she take to type a report of 1050 words?

   (1)   30 min

   (2)   35 min

   (3)   40 min

   (4)   45 min

6   Simplify $4y + 3 - 2y - 4 + 6y$

   (1) $4y - 1$

   (2) $8y - 1$

   (3) $8y + 7$

   (4) $12y + 7$

7   The figure below shows a circle with centre marked O. AE, FC and BD
     are straight lines.
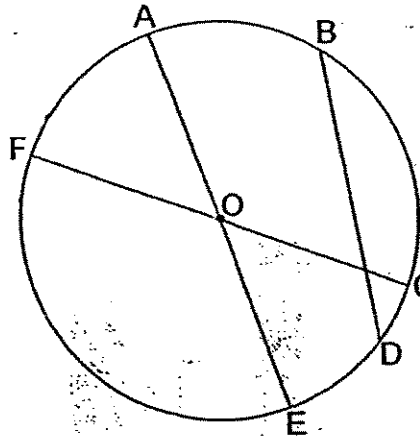
Which of the following pairs correctly shows its radius and diameter?

	Radius	Diameter
(1)	BD	AE
(2)	OE	FC
(3)	AE	FC
(4)	AO	BD

8   Which figure below is a symmetric figure?

| (1) | (2) | (3) | (4) |

3
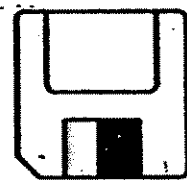
9   The graph below shows the number of cakes and pies sold at a confectionery shop from Monday to Thursday.
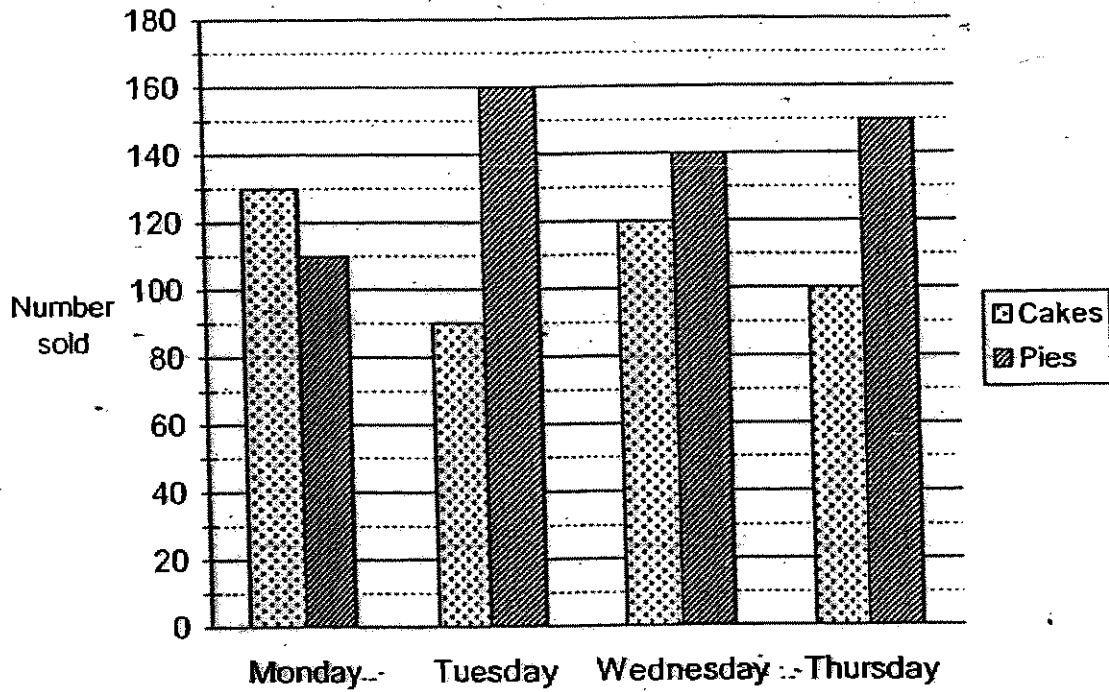
On which day were the most number of cakes and pies sold?

(1)   Monday

(2)   Tuesday

(3)   Wednesday

(4)   Thursday

4

10   The figure below shows a solid. Which of the following shows the correct view of the solid from the direction of the given arrow?
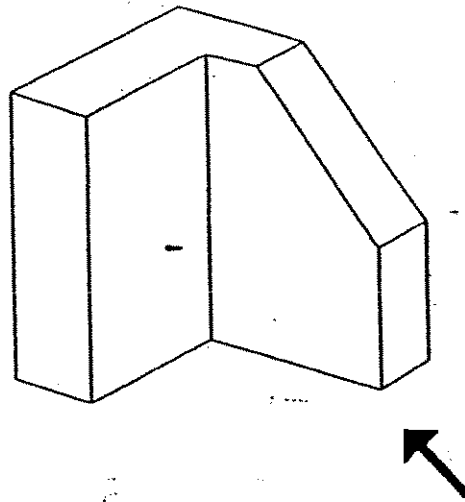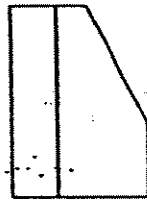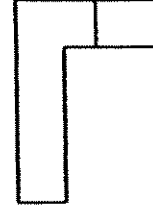
(1)   (2).   (3)   (4)

11   Arrange the numbers in the box below in descending order.

| 3.058,   3.85,   3.805,   3.508 |

What is the difference between the second number and the last number?

(1)   0.297

(2)   0.342

(3)   0.747

(4)   0.792

5

12 A ribbon is cut into two pieces. The length of the shorter piece is $\frac{3}{11}$ of the total length. If the difference in the length of the two pieces is 24 m, what is the length of the longer piece?

   (1) 33 m

   (2) 38.4 m

   (3) 52.8 m

   (4) 64 m

13 Cathy travelled a distance of 30 km at an average speed of 90 km/h. Then she travelled another 100 km at an average speed of 60 km/h. What was her average speed for the whole journey?

   (1) 40 km/h

   (2) 65 km/h

   (3) 75 km/h

   (4) 87 km/h

14   The figure shows a square of side 28 cm, a semi-circle and 2 identical quarter circles.

28 cm
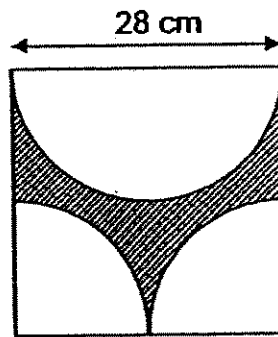
Find the area of the shaded portion. (Take $\pi = \frac{22}{7}$)

    (1)   696 cm^2

    (2)   616 cm^2

    (3)   476 cm^2

    (4)   168 cm^2

15   A special tool, with a wheel attached to it, was used to measure the perimeter of a rectangular field. It was found that the wheel made a total of 100 complete turns. The diameter of the wheel was 42 cm. Find the length of the rectangular field if the breadth measured 20 m.

(Take $\pi = \frac{22}{7}$)

    (1)   673 m

    (2)   112 m

    (3)   92 m

    (4)   46 m

7

Name: _____ (   )   Class: Pr 6 (   )

P6 SA1 2007

Booklet B

Questions 16 to 25 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

---

16   What is the value of P?

| The largest factor of 38 | + | The 7th multiple of P | = | 101 |

Ans: _____

---

17   Express 6 kg 10 g in kilograms.

Ans: _____ kg

---

18.   Susan departed Singapore at 09 40. The duration of her flight from Singapore to Tokyo was 7 h 35 min. At what time did she arrive in Tokyo?

Ans: _____

8

19 A baker made some cookies and muffins in the ratio of 4 : 5. If half of the cookies and $\frac{2}{3}$ of the muffins were eaten, find the ratio of the number of cookies left to the number of muffins left.

Ans: _____

20 Mrs Tan and Mrs Wang shared a sum of money in the ratio of 11 : 4. What percentage of Mrs Wang's share of the money is Mrs Tan's share?

Ans: _____ %

21 Ali cycled at an average speed of 300 m/min. What distance could he cover in 1.5 h?

Ans: _____ km

22 A cube with a volume of 64 cm³ is cut into 8 identical cubes. What is the length of each small cube?

Ans: _____ cm

23 The figure below shows a small circle and a big circle with the same centre marked O. B is a point on the small circle and C is a point on the big circle. OC is a straight line. The diameters of the small circle and the big circle are 50 cm and 80 cm respectively. What is the length of BC?
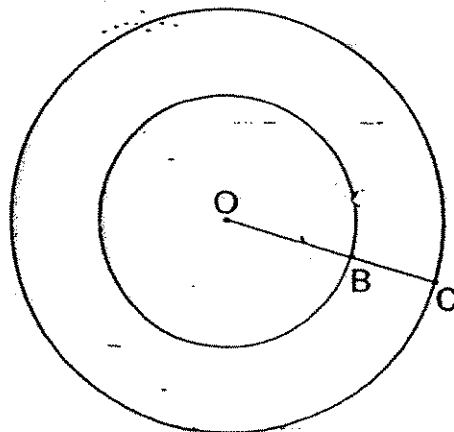
Ans: _____ cm

24   Which of these shapes can tessellate?

A.   B   C   D

Ans: _____

---

25   The line graph shows the marks scored by Tim in an examination.
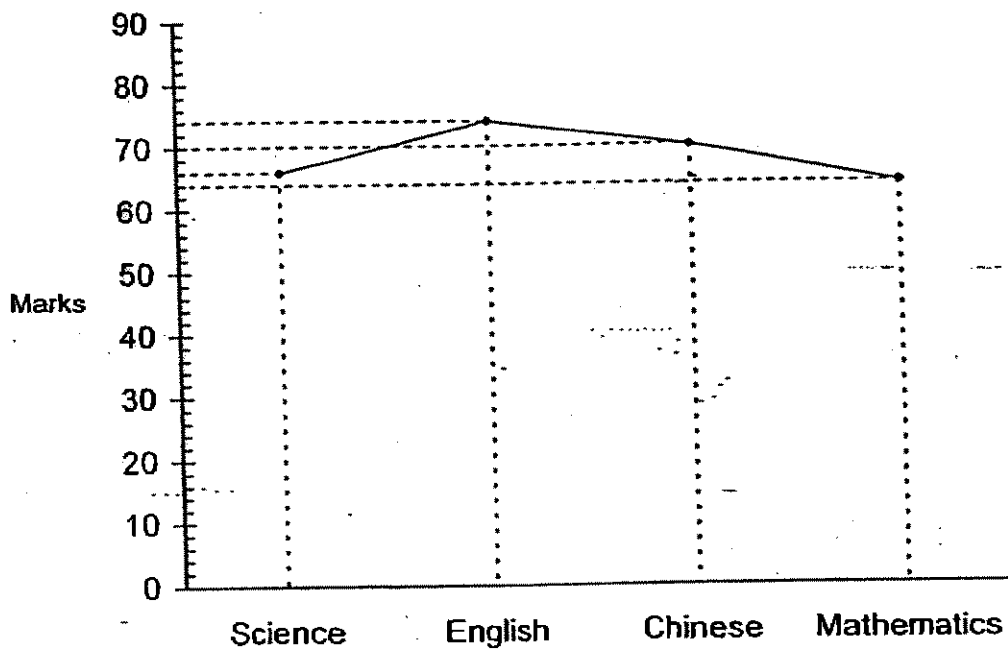
In which subject is the score closest to the average score of the four subjects?

Ans: _____

Questions 26 to 35 carry 2 marks each.   Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(20 marks)

26   The ratio of the number of foreign stamps to the number of local stamps in my album is 7 : 9. After I had used 30 local stamps, the ratio became 4 : 3. How many foreign stamps did I have at first?

Ans: _____

27   Sue bought a total of 380 stalks of roses, carnations and orchids. The number of stalks of roses was $\frac{4}{5}$ of the number of stalks of carnations. The number of stalks of orchids bought was $\frac{1}{8}$ of the number of stalks of roses. How many stalks of carnations did Sue buy?

Ans: _____

12

28   The figure below shows a box.

20 cm

12 cm   3 cm
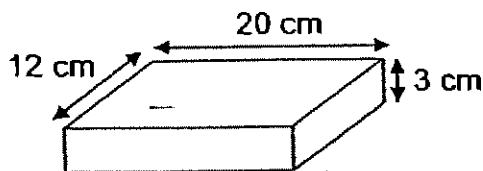
Jack placed 5 such boxes on top of one another and then tied them with a ribbon as shown below.
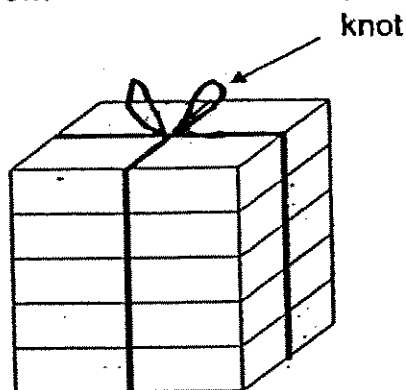
knot

Given that Jack used 25 cm of ribbon to tie the knot, how much ribbon did he use altogether?

Ans: _____ cm

29   There are 60 boys and 45 girls in a school band. How many percent fewer girls than boys are there?

Ans: _____ %

30   A furniture dealer imported 25 Italian-made sofas at $1200 each. He
      sold 10 of them at a profit of 30% and the rest at a discount of $200
      each. What was his overall profit?

Ans $ _____

31   Han Meng receives $63m from his mother and $\frac{2}{3}$ as much from his

father as his weekly allowance. Each week, he spends $5m on transport,

thrice as much on food and he saves the rest. How much would he save

in 5 weeks? Express your answer in terms of m in its simplest form.

Ans: $ _____

14

32   The figure below shows a field which is made up of 3 rectangles. The cost of fencing 1 m of the field is $20. What is the total cost of fencing the field? Express your answer in terms of *x* in the simplest form.
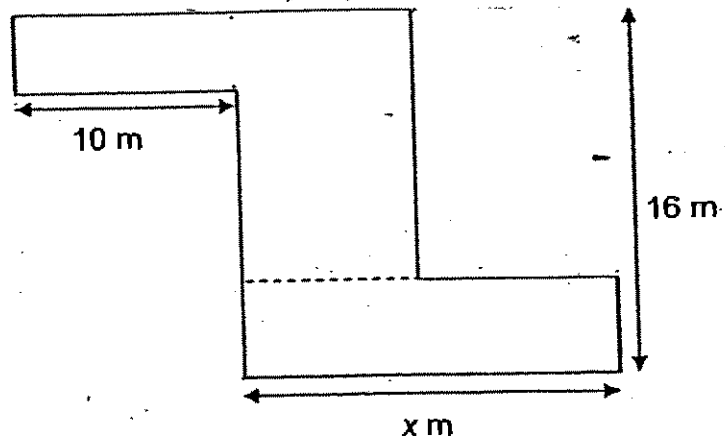
Ans: $ _____

33   Kang's clock loses 4 minutes every 2 hours. If the time shown on the clock is 11.00 p.m. now, what time will the clock show 8 hours later?

Ans: _____

34   Mary cut out 2 identical semi-circles from a piece of triangular cardboard as shown below. The perimeter of the remaining cardboard is 126 cm and the diameter of each semi-circle is 14 cm. What is the length of AB?

(Take $\pi = \dfrac{22}{7}$)
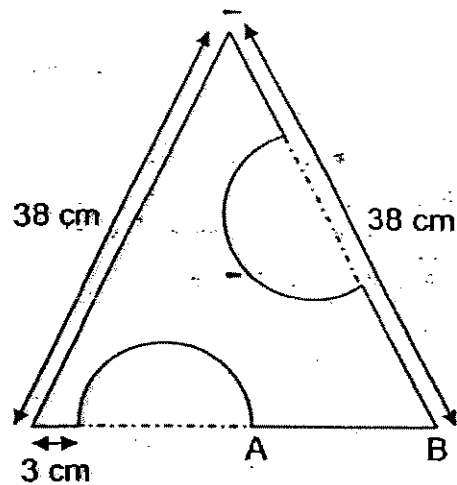
Ans: _____ cm

35   The map below shows the locations of seven cities. What is the minimum number of roads that need to be constructed so that any 2 cities are linked directly to each other?
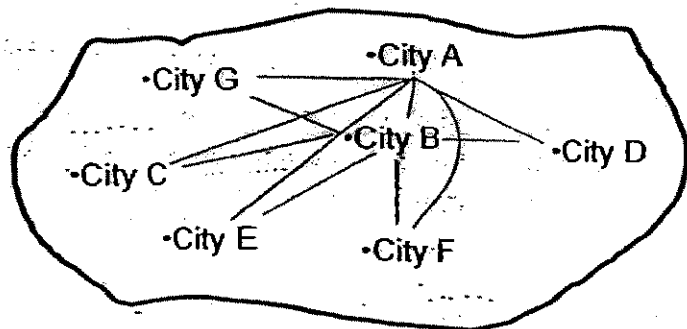
Ans: _____

Name:_____(   ) Class: Pr 6 (   )

P6 SA1 2007

For questions 36 to 48, show your working clearly in the space provided for
each question and write your answers in the spaces provided.
The number of marks available is shown in brackets [   ] at the end of each
question or part-question.

(50 marks)

36   At a pet shop, a bird and a cat cost $320, a bird and a goldfish cost $165
      and a goldfish and a cat cost $215. How much does a goldfish cost?

Ans: _____ [3]

37   A tank is 36% filled with water. If 75% of the water in the tank is poured
      out and 364 cm^3 of water is poured in, the tank is filled to the brim. What
      is the volume of the tank?

Ans: _____ [3]

38   Sunshine coffee is a mixture of two grades of coffee powder A and B in the ratio of 5 : 7. If 1 kg of the coffee powder A costs $6 and 1 kg of the coffee powder B cost $12, what is the cost of 20 kg of Sunshine Coffee?

Ans: _____ [3]

39   The figure below shows 3 identical small semi-circles, a big semi-circle, a rectangle and a square. The length of the rectangle is 40 cm. Find the area of the figure. (Take $\pi = 3.14$)

Ans: _____ [3]

18
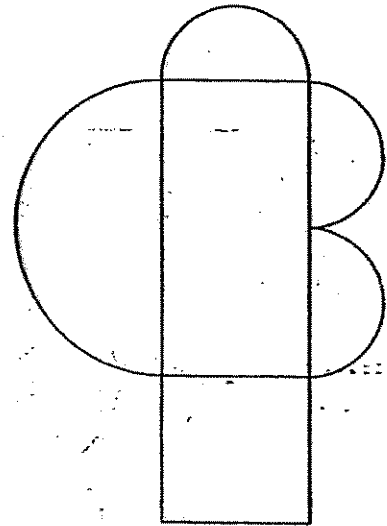
40 The figure shows a prism. The triangles at both sides are equilateral triangles.
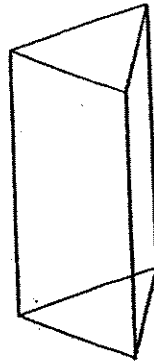
(a) How many surfaces does this prism have?

Ans: (a) _____ [1]

(b) Complete the figure in the grid provided below to show the net of the prism. [2]
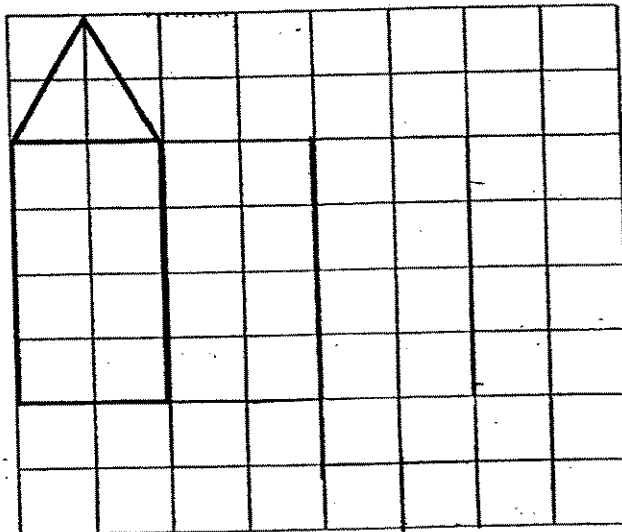
41　A motorist wanted to travel from Town P to Town R via Town Q. On the first day, he travelled 70 km from Town P to Town Q. On the second day, he continued his journey from Town Q towards Town R and covered $\frac{1}{4}$ of the remaining journey. He was then halfway between Town P and Town R. If he had travelled at an average speed of 50 km/h, find the total time taken to travel from Town P to Town R.

Ans: _____ [3]

20

42   The figure below shows four identical small circles, one medium circle and one big circle. The diameter of the big circle is 72 cm. The radius of the medium circle is twice the radius of each small circle. Find the shaded area in terms of π.

72 cm
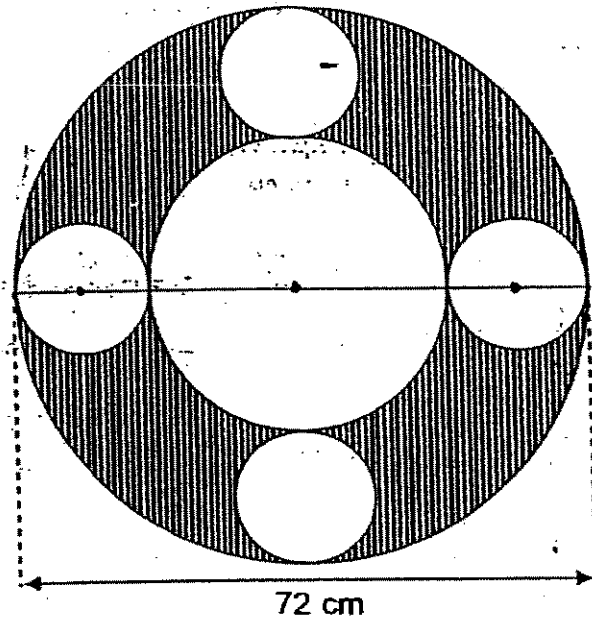
Ans: _____ [4]

43   The table shows the parking charges at a car park.

PARKING CHARGES			
Monday to Friday	From 8.00 a.m. to 5.00 p.m.	For the first hour	$2.50
		For every subsequent 15 min or part thereof	$0.40
	From 5.00 p.m. to 11.59 p.m.	For every subsequent hour or part thereof	$1.50
Saturday and Sunday	From 8.00 a.m. to 3.30 p.m.	For the first hour	$2.00
		For every subsequent 15 min or part thereof	$0.30
	From 3.30 p.m. to 11.59 p.m.	Per entry	$3.00

Mrs Tan parked her car from 10.40 a.m. to 6.30 p.m. What would the difference in the parking charges be if she had parked her car on Friday and on Saturday?

Ans: _____ [4]

22

44 The figure is made up of 3 identical isosceles triangles ABF, BCF and CDF, another isosceles triangle DEF and a parallelogram AFGH. Given that AF = BF = CF = DF = EF , ∠FDE = 55°, ∠GFE = 45° and ∠HAF = 40°, what is the value of ∠x?
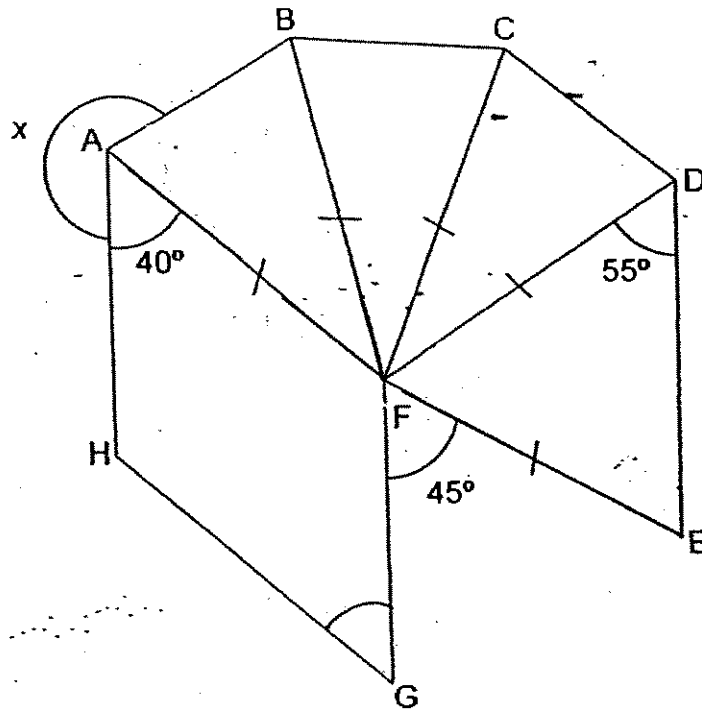
Ans: _____ [4]

45   Mrs Yeo had 60% more books than Mdm Lim. Miss Tang had 25% fewer books than Mrs Yeo. Mrs Yeo and Mdm Lim gave Miss Tang some books in the ratio 3 : 1. As a result, Miss Tang had 1.5 times as many books as before. Given that Mrs Yeo had 240 more books than Mdm Lim in the end, how many books did Mrs Yeo give to Miss Tang?

Ans: _____ [5]

24

46   Yen Ming started driving his car from Town X to Town Y at 13 40 at an average speed of 70 km/h. Leon started driving his sports car from Town X to Town Y at 15 10 at an average speed of 100 km/h.

(a) At what time did Leon pass Yen Ming on the road?

(b) $1\frac{3}{4}$ h after Leon passed Yen Ming on the road, Leon reached Town Y. At what time did Yen Ming reach Town Y?

Ans: (a) _____ [3]

(b) _____ [2]

47   In a stadium, 20% of the people are performers for the National Day
      Parade and the rest are spectators. 65% of the spectators are males
      and there are 1200 more male spectators than female spectators. How
      many male spectators must leave the stadium so that 40% of the people
      in the stadium are male spectators?

Ans: _____ [5]

26

48   $\frac{1}{5}$ of the number of chickens that Farmer Wong had is equal to $\frac{3}{4}$ of the number of chickens that Farmer Zhang had. When Farmer Wong sold 150 of his chickens and Farmer Zhang bought another 160 chickens, the ratio of the number of chickens that Farmer Wong had to the number of chickens that Farmer Zhang had became 5 : 3. What was the total number of chickens that the 2 farmers have at first?

Ans: _____ [5]

END OF PAPER

Setters: Mr Lee Kin Leong
Mdm Sunnie Tang
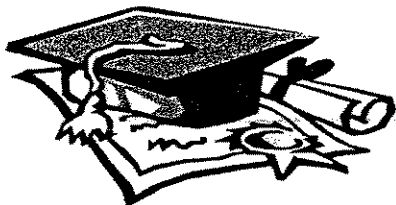
ANSWER SHEET

NANYANG PRIMARY SCHOOL - PRIMARY 6 MATHEMATICS 2007
SEMESTRAL EXAMINATION (1)

1. 4
2. 3
3. 1
4. 3
5. 1
6. 2
7. 2
8. 3
9. 3
10. 1
11. 3
12. 2
13. 2
14. 4
15. 4
16. 9
17. 6.01KG
18. 17.15
19. 6.5
20. 275%
21. 27km
22. 2cm
23. 15cm
24. C
25. Chinese

26) 26-21=15
    15units→30
    28units→30/1x28/25=56foreign
                          stamps

27) 8+10+1=19
    19units→380
    10units→380/1x10/19=200stalks

28) 3cmx5=15cm
    15cmx4=60cm
    20cmx2=40cm
    12cmx2=24cm
    60cm+40cm+24cm+25cm=149cm

29) 60-45=15
    15/60=1/4 =25/100=25%

30) 100%+30%=130%
    25x$1200=$30000
    10x$1200=$12000
    $12000/1x130/100=$15600
    $30000-$12000=$18000
    25-10=15
    $200x15=$3000
    $18000-$3000=$15000
    $15600+$15000=$30600
    $30600-$30000=$600

31) 1+2/3=1₂/₃=5/3
    $63m/1x5/3=$105m
    3+1=4
    $5mx4=$20m
    $105m-$20m=$85m
    $85mx5=$425m

32) X x$20=$20X
    $20X x 2=$40X
    16m+16m+10m+10m=52m
    $20x52=$1040
    $1040+$40X=$(1040+40X)

33) 7h44min

34) 22/7x14cm=44cm
    (33+30+44+3)cm
    =123cm
    123cm-14cm=109cm
    126cm-109cm=17cm

35) 21 roads

36) B+C=$320
    B+G=$165
    G+C=$215
    $320+$165+$215=$700
    $700÷2=$350
    $350-$320=$30

37) 100%-75%=25%
    25/100x36=90%
    100%-9%=91%
    91%-->364cm3
    100%-->364cm3/1x100/91
    =400cm3

38) $6x5=$30 (A)
    $12x7=$84 (B)
    $30+$84=114 (12kg)
    5kg+7kg=12kg
    12kg→$114
    20kg→$114/1x20/12=$190

39) 40cm÷2=20cm
    20cmx20cm=400cm2
    40cmx20cm=800cm2
    20cm÷2=10cm
    10cmx10cm=100cm2
    3.14x100cm2=314cm2
    ½ x3=3/2
    3/2x314cm2=471cm2 (3semi-circles)
    3.14x400cm2x ½ =628cm2
    (471+800+400+628)cm2=2299cm2

40) a) 5 surfaces   b)

41) 50km→1h
    70km→60min/1x70/50
    =84min=1h24min
    2units→1h24min
    6units→3h72min
    =4h12min

42) 72cm÷8=9cm
    72cm÷2=36cm
    36cmx36cm=1296cm2 (Big circle)
    9cmx9cm=81cm2
    81cm2x4=324cm2
    9cmx2=18cm
    18cmx18cm=324cm2
    (1296-324-324)cm2
    =648cm2
    Ans:648 π cm2

43) $4.50

44) $180° -40° =140°$
$180° -(55° \times 2)$
$=70°$
$360° -140° -70° -45°$
$=105°$
$105° ÷3=35°$
$180° -35° /2=72.5$
$360° -40° -72.5$
$=247.5°$

45) $3+1=4$
6units ÷ 4 = 1.5units
1.5units x 3 = 4.5units
16units - 4.5units = 11.5units
10units - 1.5units = 8.5units
11.5units - 8.5units = 3units
3units→240
4.5units→240/1x45/30=360 books

46) a) 1840
    b) 2110

47) $100\%-65\%=35\%$
$65\%-35\%=30\%$
30%-->1200
35%-->1200/1x35/30=1400 (females)
1400+1200=2600 (male)
2600+1400=4000 (total)
$100\%-20\%=80\%$
80%-->4000
20%-->1000
1000+1400=2400
$100\%-40\%=60\%$
60%-->2400
40%-->2400/1x40/60
=4800/3=1600
2600-1600=1000

48) 490

---end---

Index No.

NANYANG PRIMARY SCHOOL

PRELIMINARY EXAMINATION 2007

PRIMARY 6

MATHEMATICS

DURATION: 2 HOUR 15 MINUTES

Booklet A	/ 20
Booklet B	/ 30
	/ 50

| Total: | / 100 |

Name: _____ (   )

Class: Primary 6 (   )

Date: 21 August 2007

Parent's Signature: _____
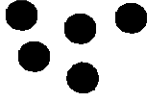
WRITE YOUR INDEX NO. IN THE BOXES AT THE TOP RIGHT HAND CORNER.

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

FOLLOW ALL INSTRUCTIONS CAREFULLY.

ANSWER ALL QUESTIONS.

Booklet A

Questions 1 to 10 carry 1 mark each.　Questions 11 to 15 carry 2 marks each. For each question, four options are given.　One of them is the correct answer. Make your choice (1, 2, 3 or 4).　Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.

(20 marks)

1　What is the value of the number that is represented on the place value chart?

Ten thousands	Thousands	Hundreds	Tens	Ones
● ● ● ● ●		● ● ●	● ●	

3000

(1)　50 thousands and 320 tens

(2)　53 hundreds and 20 ones

(3)　503 hundreds and 20 ones

(4)　503 thousands and 20 tens

2　A number lies between 84 and 90. Which of the following cannot be a factor of this number?

(1)　17

(2)　27

(3)　29

(4)　43

1

3   Δ represents a value between 1 and 3. Which expression has the largest value?

   (1) $\dfrac{\Delta + 3}{\Delta}$

   (2) $\dfrac{\Delta + 3}{3}$

   (3) $\dfrac{3 - \Delta}{3}$

   (4) $\dfrac{3 - \Delta}{\Delta}$

4   Alice had a piece of string 2 m 4 cm long. She cut off 1.4 m from it. What is the length of the remaining string?

   (1)   190 cm

   (2)   136 cm

   (3)   100 cm

   (4)   64 cm

5   Jane parked her car at a car park which charged a fixed rate of 3 cents per minute. How much did Jane have to pay if she entered the car park at 10 50 and left at 13 48?

   (1)   534¢

   (2)   654¢

   (3)   774¢

   (4)   894¢

2

6   If Andrew walks to the city and cycles back, he will take 6 hours. If he walks both ways, he will take 8 hours. How many hours will he take if he cycles both ways? (Assume that Andrew's walking and cycling speeds do not change)

(1)   14

(2)   2

(3)   7

(4) ` 4

7   The graph shows the marks obtained by Amina and Bryan in 5 tests.
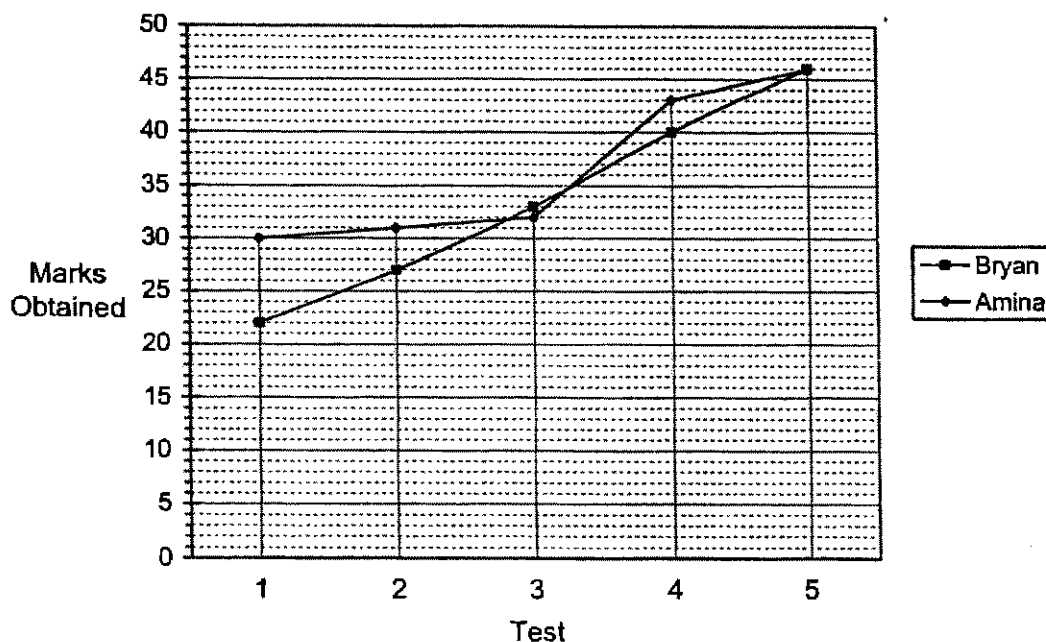
Find the difference in the improvement shown by the two pupils from Test 3 to Test 4.

(1)   1

(2)   2

(3)   3

(4)   4

3

8   The length of a rectangle is increased by 20% and its breadth is decreased by 20%. Express the area of the new rectangle as a percentage of the area of the original rectangle.

    (1)   64%

    (2)   96%

    (3)   100%

    (4)   144%

9   Ali is looking at the object from the position as shown.
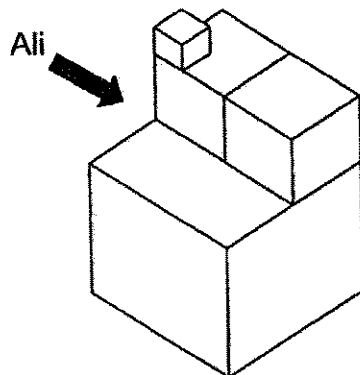
Which of the following shows the correct view from his position?
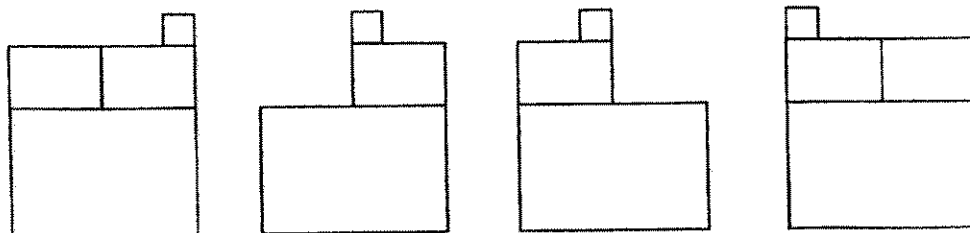
    (1)   (2)   (3)   (4)

4

10   The figure is made up of 2 circles. The radius of the big circle is 3 times the radius of the small circle. What is the difference in the circumferences of the two circles?

(1) 20π cm

(2) 40π cm

(3) 80π cm
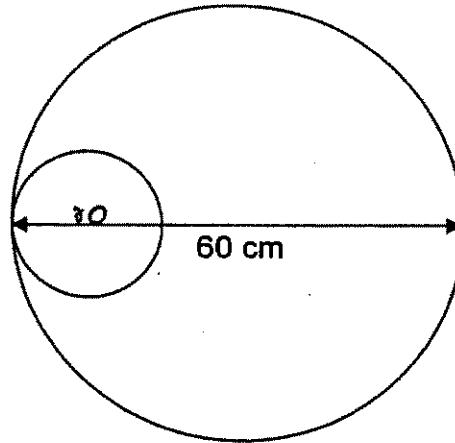
(4) 800π cm

11   What is the missing number in the box?

$$6 \times 6 + \boxed{} \div 9 - 8 = 40$$

(1)   4

(2)   108

(3)   332

(4)   396

5

12   The figure shows the net of a cuboid with a square base. What is the maximum number of 2-cm cubes that can be packed into the cuboid?

5 cm   11 cm
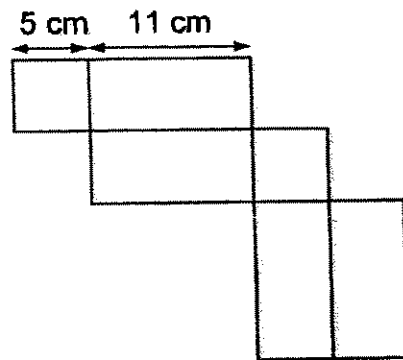
(1)   20

(2)   34

(3)   68

(4)   137

13   A bus departed from the bus interchange with $\frac{4}{5}$ of the passenger load. $\frac{3}{8}$ of the passengers were women, $\frac{1}{4}$ were men and the rest were children. If there were 30 children on the bus, what is the full passenger load?

(1)   60

(2)   80

(3)   100

(4)   150

6

14 Given that $\dfrac{2}{3}$ of Alan's money is equal to 75% of Tim's money, what fraction of Tim's money is the total sum of money?

(1) $\dfrac{8}{17}$

(2) $\dfrac{9}{17}$

(3) $\dfrac{17}{8}$

(4) $\dfrac{17}{9}$

15 The grid shows the seating arrangement of 9 pupils. Elvis is seated southeast of Fion. Guohao is seated 135° anticlockwise from Halimah. Who is seated west of Ian?
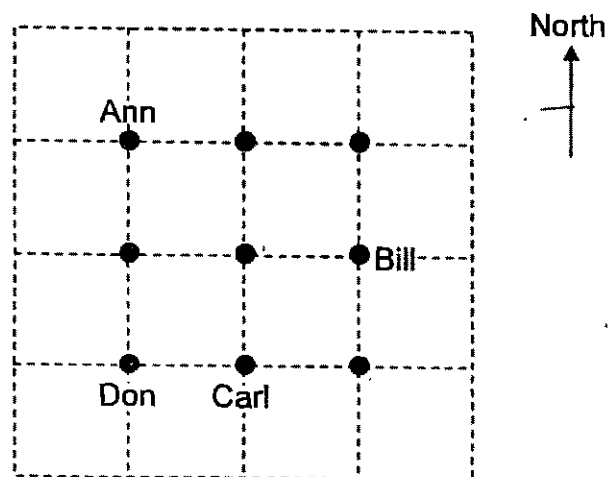
(1)   Carl

(2)   Don

(3)   Guohao

(4)   Halimah

7

Name: _____(   )   Class: Pr 6 (   )

P6 PRELIMS 2007

Booklet B

Questions **16** to **25** carry **1** mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

16   A total of $349 549 was collected on a flag day. Express this value to the nearest hundred thousand dollars.

Ans: $ _____

17   John started his lessons at 7.30 a.m. and he was supposed to have a break at 10.15 a.m. After $2\frac{3}{5}$ h into the lessons, he was given his break earlier. How much earlier was his break?

Ans: _____ min

18   What percentage of 5 km is 20 m 50 cm?

Ans: _____ %

8

19　　A mixture, weighing 100 kg is made up of 2 chemicals A and B in the ratio 7 : 3. When some volume of Chemical A evaporates, the content of Chemical A is reduced to 60% of the new mixture. What is the mass of the mixture now?

Ans: _____ kg

20　　Five identical pencils cost $6y. How much would 9 such pencils cost?

Ans: $ _____

21　　The figure shows a triangular prism with AB = BC. How many different ways are there to cut the prism into 2 identical parts with a single cut?

Ans: _____

9

22   The figure shows a pyramid with a square base of side 9 cm. The sides are made up of equilateral triangles.

9 cm

What is the perimeter of the net of the above solid?

Ans: _____ cm

23   The figure shows a rectangular grass field with a cemented walking path of constant width 2 m. Mr Lim mows the grass at a rate of 10 m² per minute. How long will it take him to mow the field completely?

22 m

5 m

Walking path

Ans: _____ min

10

24   Wei Wei started growing a plant and he charted its growth in the graph
      below. A growth pattern of the plant was observed.
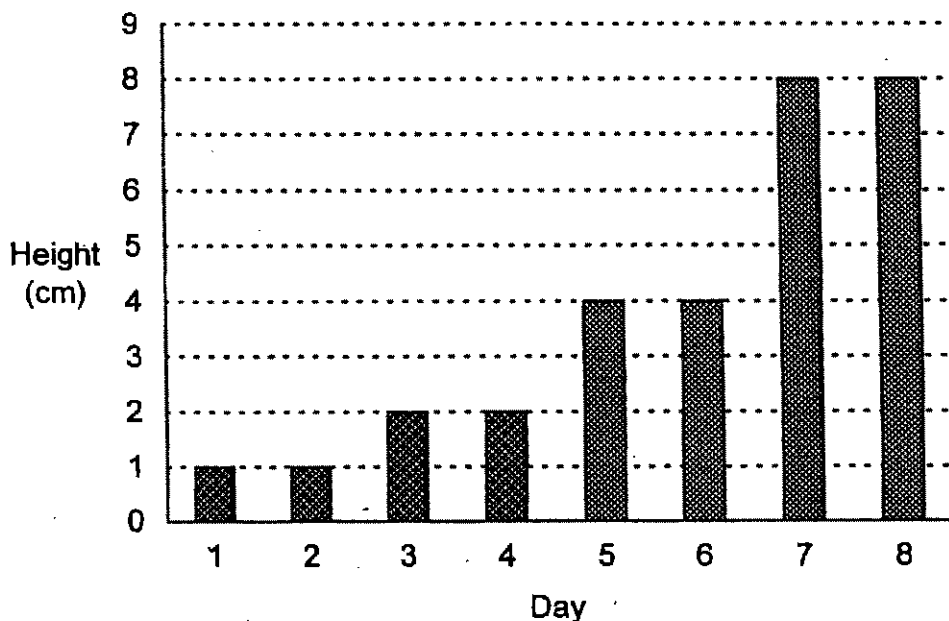
How tall will the plant be on Day 16?

Ans: _____ cm

25   The figure shows 2 straight lines. Measure and write down the size of
      the angle marked *m*.
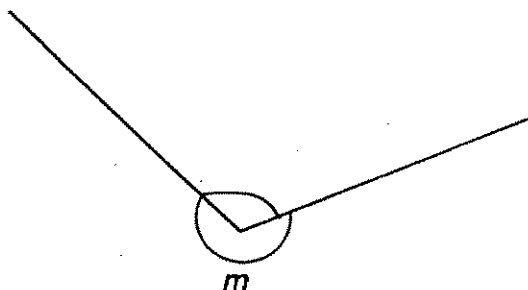
Ans: _____ °

11

Questions 26 to 35 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(20 marks)

26   Arrange these numbers in descending order:

$\dfrac{2}{50}$,   0.309, $\dfrac{1}{3}$,   0.065

Ans: _____

27   There are 5 identical dictionaries and 10 identical textbooks on the shelf. Each textbook weighs $\dfrac{1}{5}$ kg and each dictionary is $3\dfrac{1}{2}$ times as heavy as the textbook. When 3 dictionaries are removed from the shelf, what is the total mass of the remaining books?

Ans: _____ kg

12

28 Jug A and Jug B are filled to the brim. If all the water in Jug A is poured into Container C, it is 28 litres short of completely filling it. If all the water in Jug B is poured into Container C, it is 35 litres short of completely filling it. If the water in Jug A and B is combined, it will completely fill Container C. How much water is in Jug A when it is $\frac{1}{7}$ filled?

Ans: _____ litres

29 A group of boys and girls went on a fieldtrip. Excluding Tom and Peter, the number of boys was $\frac{2}{3}$ the number of girls. The number of girls was 1 more than the number of boys. When another 3 girls joined the group, what fraction of the children were girls? Give your answer in its simplest form.

Ans: _____

13

30   How many different ways are there to arrange 4 children if they are standing in a row?

Ans: _____

---

31   The pie chart below shows the number of pupils who like the various sports.
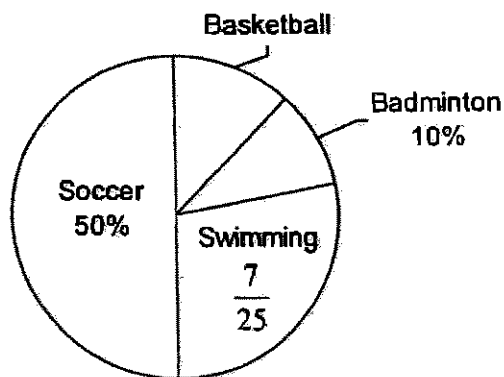
If 300 pupils like soccer, how many pupils like basketball?

Ans: _____

---

32   A soccer tournament is organised for 8 teams. Each team has to play with every other team. How many matches will be played in all?

Ans: _____

Use the figure given below to answer questions 33 and 34.

The pattern in the figure shows part of a tessellation.
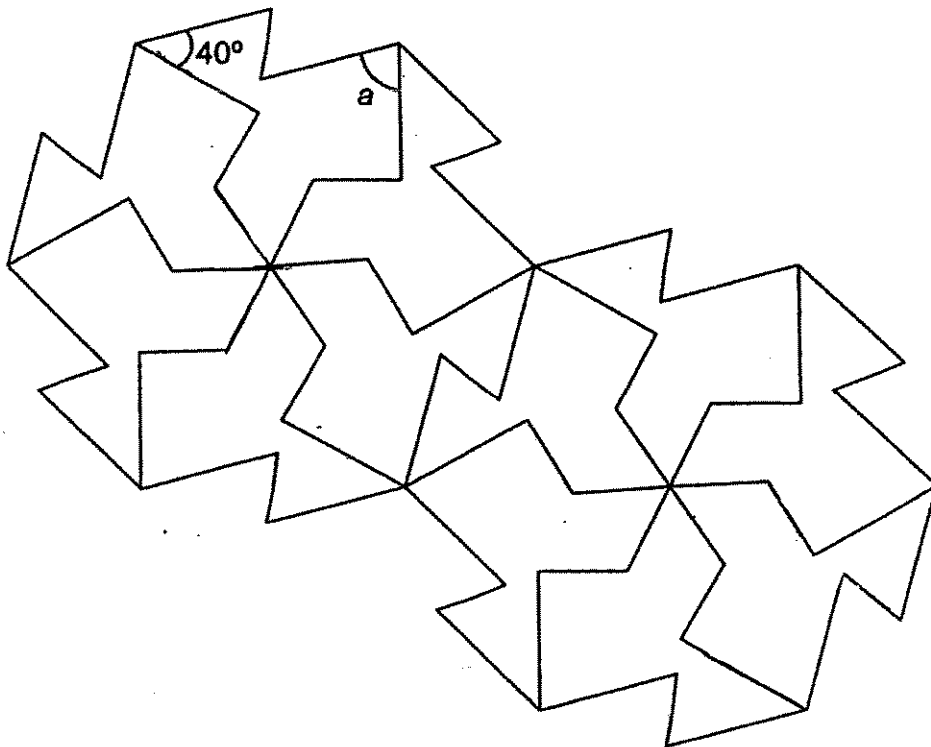
33   (a)   Shade a unit shape of the tessellation.

(b)   Mark a pair of vertically opposite angles on the figure. Label the angles as b and c.

_____

34   In the figure, find $\angle a$.

Ans: _____ $^\circ$

_____

15

35   A rectangular piece of paper is folded along AC at Corner B as shown in
      Figure 1 so that the line BC lies on the centre line.
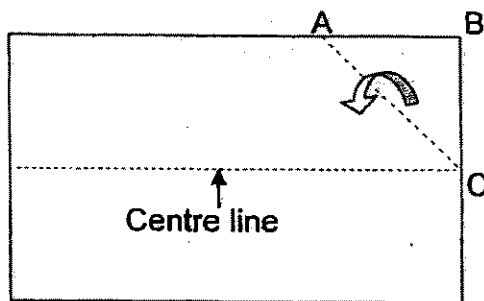
Figure 1

Next, it is folded along DC as shown in Figure 2 so that the line AC lies
on the centre line.
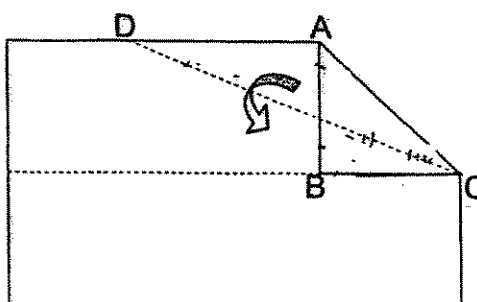
Figure 2

Finally, it is folded along EF as shown in Figure 3 so that the line GD lies
on the centre line.
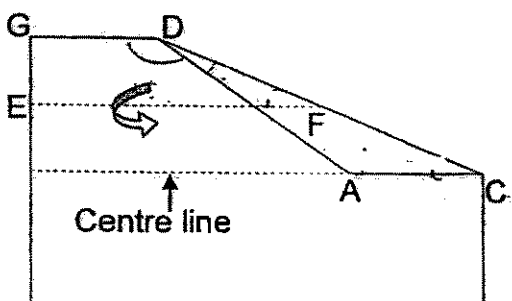
Figure 3   **Figure 4**
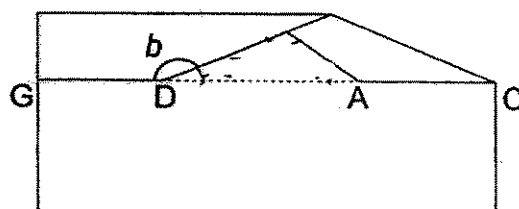
Find $\angle b$.

Ans: _____ °
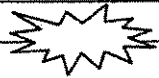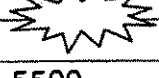
For questions 36 to 48, show your working clearly in the space provided for each question and write your answers in the spaces provided.
The number of marks available is shown in brackets [   ] at the end of each question or part-question.

(50 marks)

---

36   A group of *w* boys planned a camping trip and they bought food to last them for 35 days. If 6*w* more boys joined the camp, how many days would the same amount of food last?

Ans: _____ [3]

---

37   The table below shows the statistics of a town's population. However, some data has been accidentally deleted.

Population	40000
Below 15 years old	
15 – 64 years	
65 years and over (Elderly)	5500
Support Ratio (Number of Residents Aged 15 – 64 Years Per Elderly Resident)	6

What percentage of the citizens in the town are below 15 years old?

Ans: _____ [3]

17

38　　Tom worked 20 days in August. He gave 0.15 of his salary to his mother, used $\dfrac{4}{5}$ of the remainder and saved the rest. He saved a total of $340 in August. How much did he receive for a day's work?

Ans: _____ [3]

39　　Mr Yeo earned a monthly salary of $3000 which was 20% more than the monthly salary of Mr Poon.

(a)　What was Mr Poon's monthly salary?

(b)　When both Mr Yeo and Mr Poon's monthly salaries were increased by the same percentage, Mr Yeo would earn $590 more than Mr Poon. What was the percentage increase in their salaries?

Ans: (a) _____ [1]

(b) _____ [2]

40   Four children made the following statements.

Walter: The average of Yo Yo's mass and my mass is 29 kg.
Xaviar: I am the heaviest.
Yo Yo: Zenith is 2 kg lighter that Xaviar.
Zenith: Our masses are in consecutive order (in running sequence).

What is the total mass of Walter, Xaviar and Yo Yo?

Ans: _____ [3]

41   Mrs Samy made a deal with her son, Raju, that for every night he spent reading, he would get 2 stickers. For every night that he did not read, he would give her back 1 sticker. The deal lasted 30 days and Raju collected 24 stickers in all. How many nights did Raju spend reading?

Ans: _____ [3]

42   (a) The figure shows a rectangular field ABCD. Mike walked from A to B to C to D and he covered a distance of 57 m. Sandy walked from B to C to D to A and she covered a distance of 48 m. What is the perimeter of the field?
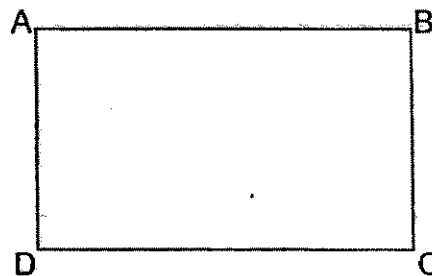
    (b) Some construction work was undertaken on the same field and a semi-circular part was removed from it. What is the perimeter of the field after the construction? (Take $\pi = \dfrac{22}{7}$)

10.5 m

Ans: (a) _____ [2]

       (b) _____ [2]

20
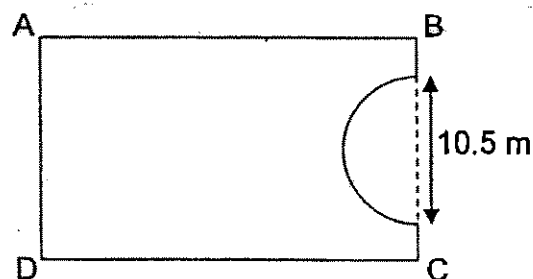
43 The shaded figure is made up of 4 quarter arcs of radius 10 cm. Find its area. (Take $\pi = 3.14$)
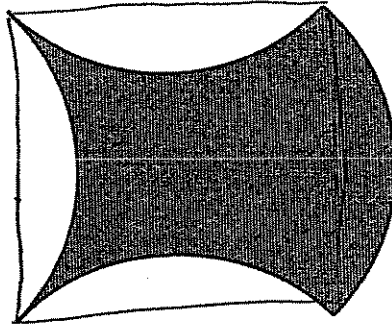
Ans: _____ [4]

44   The tickets for a show are priced at $10 and $5. The number of ten-dollar tickets available is $1\frac{1}{2}$ times the number of five-dollar tickets. 5 out of 6 ten-dollar tickets and all the five-dollar tickets were sold. The ticket sales amounted to $5600. How much more would have been collected if all the tickets were sold?

Ans: _____ [4]

22

45   A rectangular tank measuring 60 cm by 35 cm by 40 cm is half filled with water. If Tap A is turned on, it will take 6 minutes to fill the remaining half of the tank to its brim. Tap B drains water from the tank at a rate of 12 litres per minute. How long will it take for the tank to be filled to $\frac{1}{8}$ of its capacity if both taps are turned on at the same time?

Ans: _____ [5]

23

46   Azman had 25% more marbles than Chongfu. Chongfu had 60% more marbles than Bala. During a game, Azman and Bala lost some marbles to Chongfu in the ratio 3 : 1. In the end, Azman and Bala had 780 and 480 marbles left respectively. How many marbles did Azman have at first?

Ans: _____ [5]

47 At a school carnival, there were 520 more girls than boys. $\frac{1}{8}$ of the girls and 20% of the boys left the carnival. In the end, there were 488 more girls than boys.

(a) Did more girls or boys leave the carnival? How many more?

(b) How many children were there at the carnival in the end?

Ans: (a) _____ [1]

(b) _____ [4]

48   A bus and a car travelled from Town X to Town Y. The bus left Town X at 10.48 p.m. and it took 5 hours to reach Town Y. The car started 30 minutes later than the bus and it took 4 hours to reach Town Y. At what time did the car catch up with the bus?

Ans: _____ [5]

END OF PAPER

Setters: Miss Chan Lee Shan
            Mrs Evan Cynthia Chan
            Miss Sylvia Tay

26

ExamSutra 考试圣经
Answer Sheets
Nanyang /Pri 6 SA2/2007 Maths

1)3	2)2	3)1	4)4	5)1	6)4
7)4	8)2	9)3	10)2	11)2	12)1

13)3   14)3   15)4   16)$300 000   17)9min   18) $\frac{41}{100}$%

19)75kg   20) $\frac{54y}{5}$ 21)4   22)72cm   23)10min   24)128cm

25)245^0 26) $\frac{1}{3}, 0.309, 0.065, \frac{2}{50}$ 27)3.4kg   28)5l   29) $\frac{1}{3}$

30)24   31)72   32)28   33)
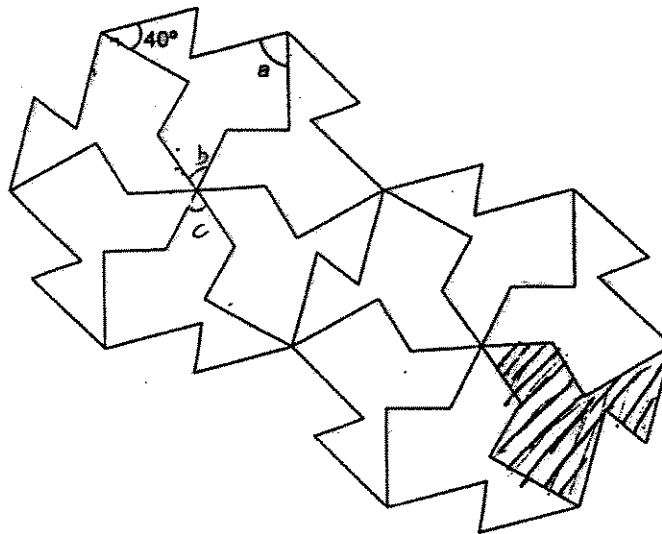
34)80^0 35)157.5^0 36)5   37)3.75%   38)$100   39)a)$2500

39)b.18%   40)89kg   41)18   42)a.70m   42)b.76m   43)143cm^2

44)$800   45)6.3min   46)1320   47)a.Girls 32   47)b.1192

48)1.18pm

Index No.

PEI CHUN PUBLIC SCHOOL

PRELIMINARY EXAMINATION 1, 2007

MATHEMATICS

BOOKLET A

Name : _____ (　　)

Class : Primary 6 　_

Date : 1 August 2007

Total Time For Booklets A & B : 2 h 15 min

INSTRUCTIONS TO CANDIDATES

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

FOLLOW ALL INSTRUCTIONS CAREFULLY.

ANSWER ALL THE QUESTIONS.

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each.

For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). **Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet.**

(20 marks)

---

1.   800 000 + 6000 + 1 = _____

   (1)   806 001

   (2)   806 010

   (3)   860 001

   (4)   860 010   (   )

2.   The best estimate of 7490 ÷ 24 is _____.

   (1)   3120

   (2)   312

   (3)   31.2

   (4)   3.12   (   )

3.   What is the missing number in the box?

   0.0502 × ☐ = 5.02

   (1)   10 000

   (2)   1000

   (3)   100

   (4)   10 .   (   )

4.   What is the missing number in the box?

   2 kg + 20 g = ☐ kg

   (1)   2020

   (2)   20.2

   (3)   2.2

   (4)   2.02   (   )

. 5.   4 boys share 6 pizzas equally. What fraction of a pizza does each boy get?

(1) $\dfrac{1}{6}$

(2) $\dfrac{2}{3}$

(3) $\dfrac{5}{4}$

(4) $\dfrac{3}{2}$ (   )

6.   ABC is an isosceles triangle and AB = BC.
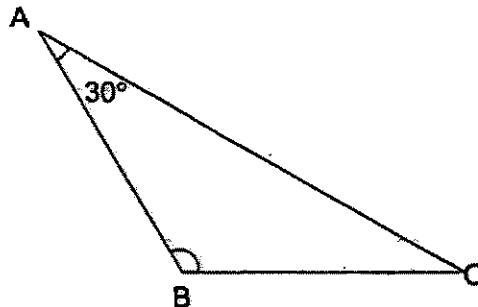
Find ∠ABC.

(1)   30°

(2)   75°

(3)   120°

(4)   150°   (   )

7.   The average of 8 and y is _____.

(1) $4 + y$

(2) $8 + y$

(3) $\dfrac{8y}{2}$

(4) $\dfrac{8 + y}{2}$ (   )

8. The graph below shows the amount of petrol left in a car and the distance it travelled.
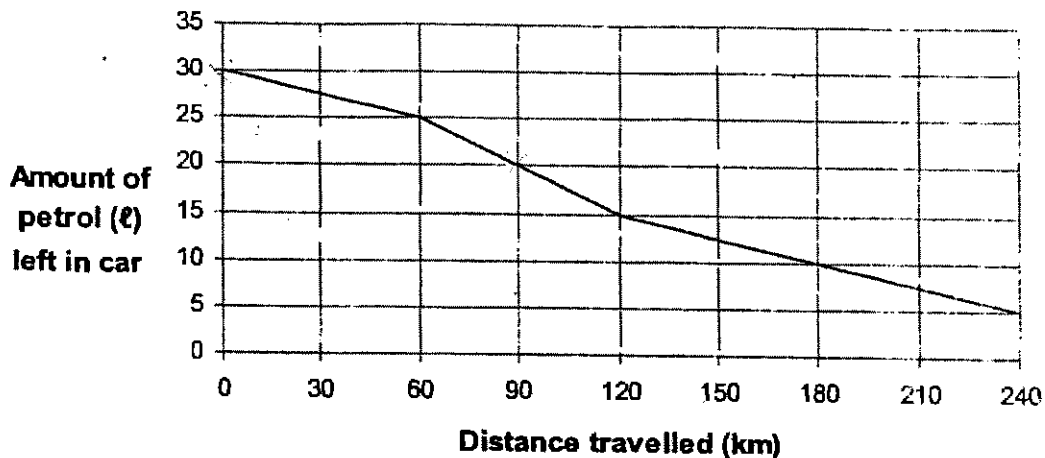
How much petrol was used for the first 90 km travelled?

(1)   10 ℓ

(2)   15 ℓ

(3)   20 ℓ

(4)   90 ℓ

                                                                    (   ).

9. A printer prints documents at a rate of 120 pages in 15 minutes. At this rate, how many pages does the printer print in 1 hour?

(1)   8

(2)   32

(3)   480

(4)   800   (   )

10. Danisa bought $\frac{5}{6}$ kg of chestnuts. She roasted $\frac{3}{10}$ of them. How many kg of chestnuts did she roast?

(1) $\frac{1}{4}$ kg

(2) $\frac{1}{20}$ kg

(3) $\frac{7}{12}$ kg

(4) $\frac{8}{15}$ kg   (   )

11. This figure shows a cuboid.

Which of the following are nets of the cuboid?

A

B

C
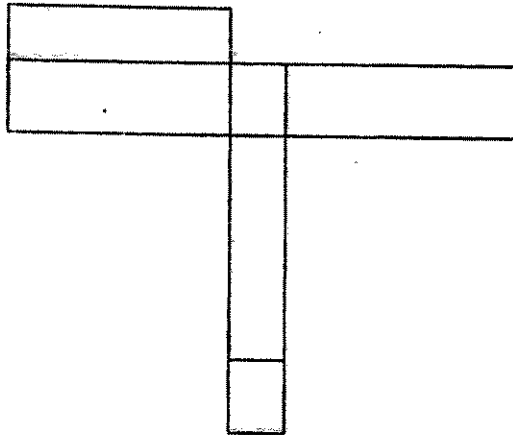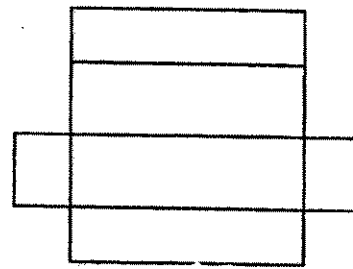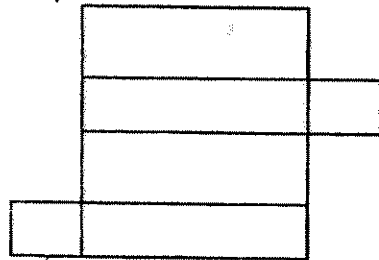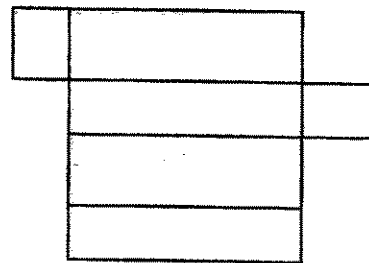
D

(1) A and B

(2) A and C

(3) B and C

(4) C and D   (   )

12. A rectangular piece of paper, grey on one side, is folded and then cut as shown.
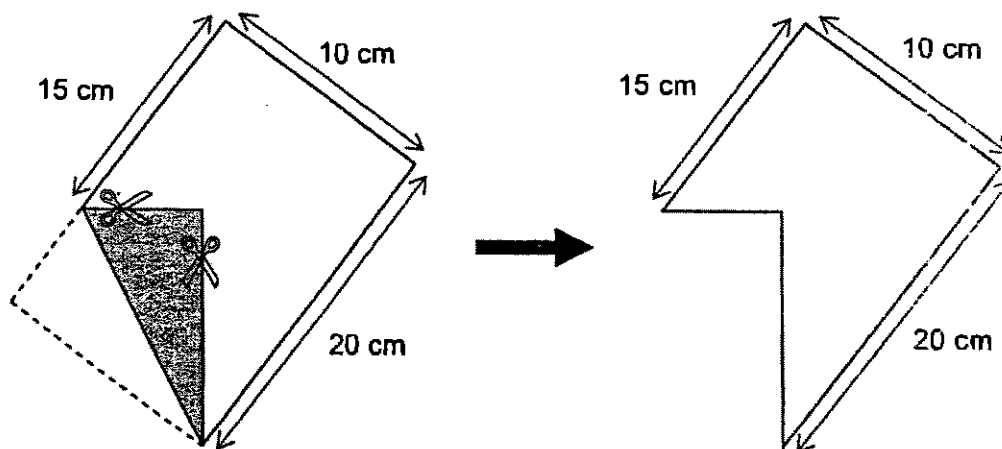
Find the area of the remaining piece of paper.

(1)   175 cm²

(2)   150 cm²

(3)   125 cm²

(4)   100 cm²   (   )

13. Fatimah has a certain length of ribbon. She cut off $\frac{5}{12}$ of it and then another $\frac{3}{7}$ of it. What fraction of the length of the ribbon was left?

(1) $\frac{13}{84}$

(2) $\frac{71}{84}$

(3) $\frac{1}{3}$

(4) $\frac{1}{4}$ (   )

14.   A cube has a volume of 64 cm³. When the length of each edge of the cube is doubled, what will the volume of the cube be?

(1)   512 cm³

(2)   256 cm³

(3)   128 cm³

(4)   8 cm³   (   )

15.   The following patterns are made up of semicircles.

| 12 cm | 12 cm | 12 cm |
| Pattern 1 | Pattern 2 | Pattern 3 |
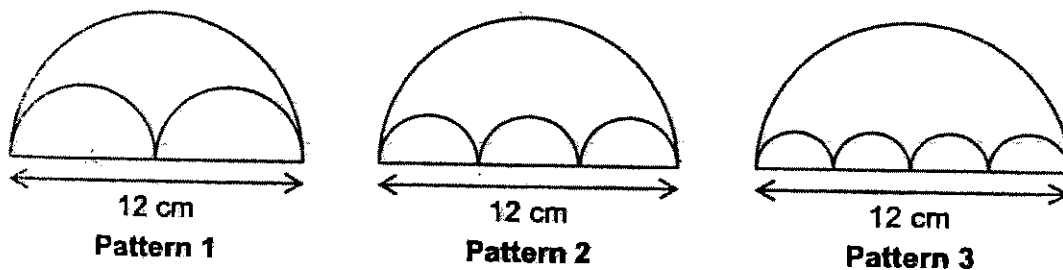
Pattern	Total area of small semicircles : Area of large semicircle
1	1 : 2
2	1 : 3
3	1 : 4

What is the total area of the small semicircles in Pattern 5 in terms of π?

(1)   7.2π cm²

(2)   3.6π cm²

(3)   3π cm²

(4)   6π cm²   (   )

End of Booklet A

Index No. ☐☐☐☐ - ☐

PEI CHUN PUBLIC SCHOOL

PRELIMINARY EXAMINATION 1, 2007

MATHEMATICS

BOOKLET B

Name : _____ ( )

Class : Primary 6 __

Date : 1 August 2007

Total Time For Booklets A & B : 2 h 15 min

Booklet A	20
Booklet B	80
TOTAL	100

INSTRUCTIONS TO CANDIDATES

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

FOLLOW ALL INSTRUCTIONS CAREFULLY.

ANSWER ALL THE QUESTIONS.

Questions **16** to **25** carry 1 mark each. Write your answers in the spaces provided.   ·Do not write·
For questions which require units, give your answers in the units stated.   (10 marks)   ·in this space·

---

16.   Find the value of 6 × (11 − 5) + 14 ÷ 2.

Ans : _____ _____

---

17.   What is the time shown on the clock face? Give your answer using the 24-hour clock.
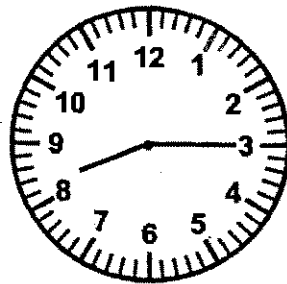
Night

Ans : _____

---

18.   The bar graph below shows the number of concert tickets bought by a class of 44 pupils.

Number of pupils

Number of concert tickets
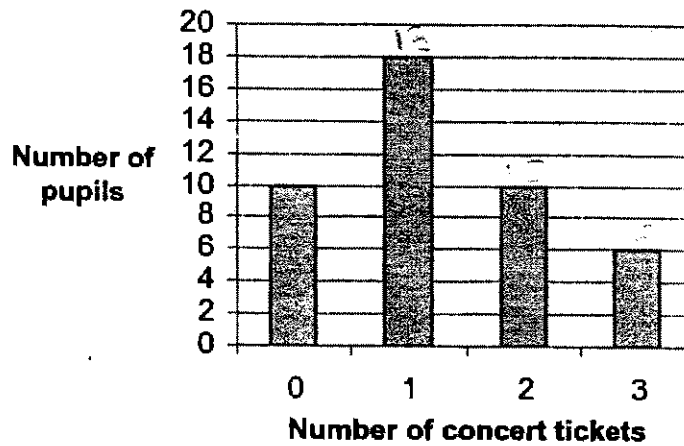
What was the total number of concert tickets bought by the pupils of the class?

Ans : _____

SCORE

19. Find ∠y.

28°   16°

Ans : _____°
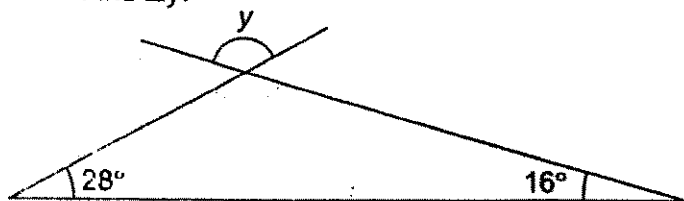
20. The figures below show 3 views of the same cube.
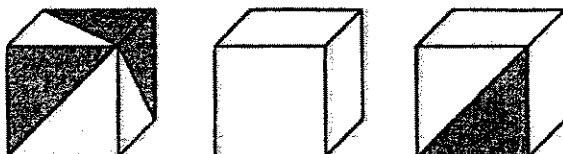
Shade the net below so that it is the net of the cube shown.
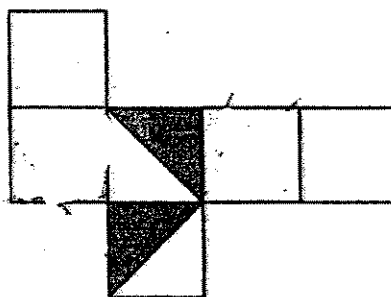
21. I had $3n at first. My mother then gave me $4n. If n = 60, how much money do I have now?

Ans : $_____

22.

MRT Station

Market   Airport

School ———————— Library

Playground   Zoo
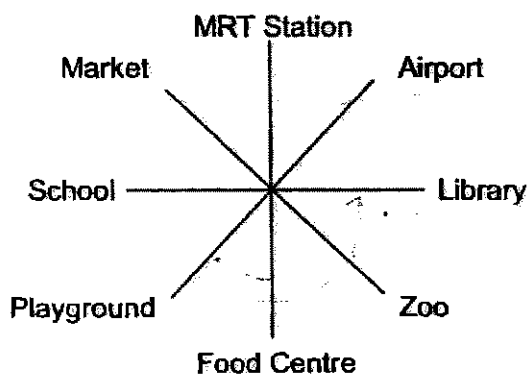
Food Centre

Ahmad is facing the food centre. When he turns 45° clockwise and then 135° anti-clockwise, where will he be facing?

Ans : _____

SCORE

23.   Which of the following shape(s) can tessellate?
       Shapes

       A   B   C   D

Ans : _____

24.   How many lines of symmetry does the figure have?
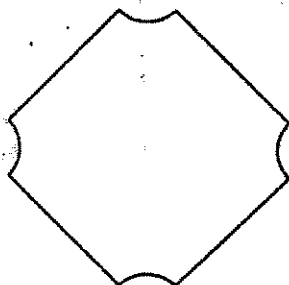
Ans : _____

25.   The pie chart below shows the favourite snacks of a group of children.
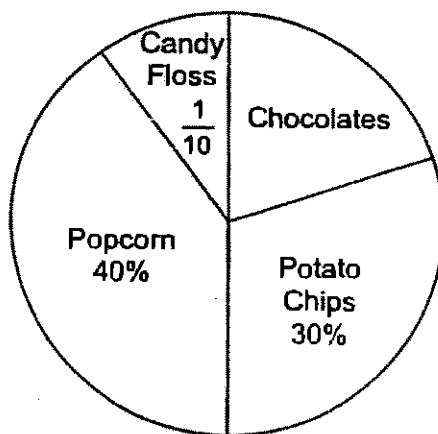
       What fraction of the children chose chocolates as their favourite snack?
       (Give your answer in its simplest form.)

Ans : _____

SCORE

Questions 26 to 35 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.   (20 marks)

26.   Find the circumference of the circle. (Take π = 3.14)
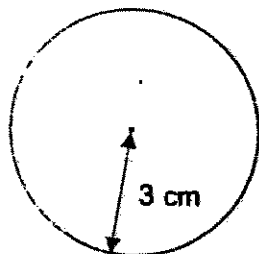
Ans : _____ cm

27.   Ghandi scored an average of 75 marks for 2 tests. How many marks must he score in the third test so that his average score for the 3 tests is 80 marks?

Ans : _____

28.   The table below shows the postage charges for sending parcels to Countries S and T.

Country	Mass step not over 200 g	Per additional 200 g or part thereof
S	$6	$1
T	$10	$2

Mr Qian wants to send a parcel weighing 350 g to Country S and another parcel weighing 150 g to Country T. How much does he have to pay for the postage?

Ans : $_____

SCORE

29.   A bus took 4 h to travel from Town M to Town N at an average speed of 54 km/h. A car took 1 h less than the bus for the same journey. What was the average speed of the car in km/h?

Ans : _____ km/h

30.   In a school, 80% of the teachers are females and the rest are males. How many percent more female teachers than male teachers are there in the school?

Ans : _____ %

31.   The figure below shows a triangle in a square. The perimeter of the square is 52 cm. Find the area of the triangle.

3 cm   3 cm
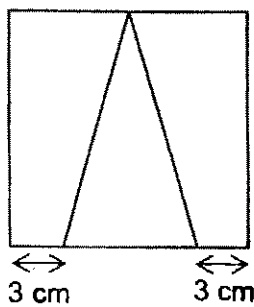
Ans : _____ cm^2

SCORE

32. The solid shown below is made up of 2-cm cubes.
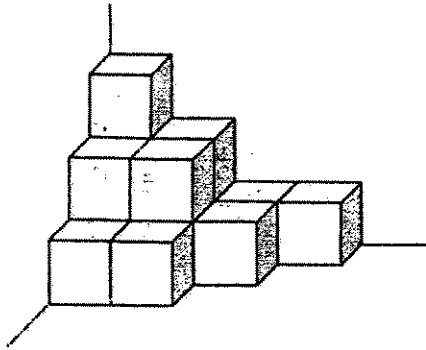
How many **more** 2-cm cubes are needed to make the solid into an 8-cm cube?

Ans : _____

33. The diagram below shows a net of a cuboid.

21 cm

36 cm
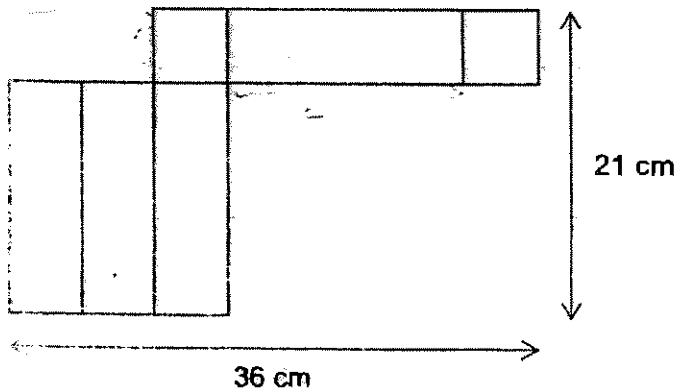
Find the volume of the cuboid.

Ans : _____ cm³

SCORE

34. Wahid, Xavier, Yati and Ziyi have to pay the same amount of class funds. Yati forgot to bring money so her 3 other classmates paid for her first. The ratio of the total amount that Ziyi paid to the total amount that Wahid and Xavier paid is 3 : 7. If Yati returned $6 to Ziyi, find the amount each pupil paid for the class funds.

Ans : $_____

35. There were 140 apples and pears in a box. $\frac{1}{2}$ of the apples and $\frac{2}{3}$ of the pears were eaten. In the end, there were 68 of these fruits left. How many apples were eaten?

Ans : _____

SCORE

For questions 36 to 48, show your working clearly in the space below each question and write your answers in the spaces provided.
The number of marks available is shown in brackets [   ] at the end of each question or part-question.   (Total: 50 marks)

36.   The figure below shows two straight lines PQ and PS.

(a)   Draw two lines QR and RS such that QR // PS and RS // PQ.   [2]
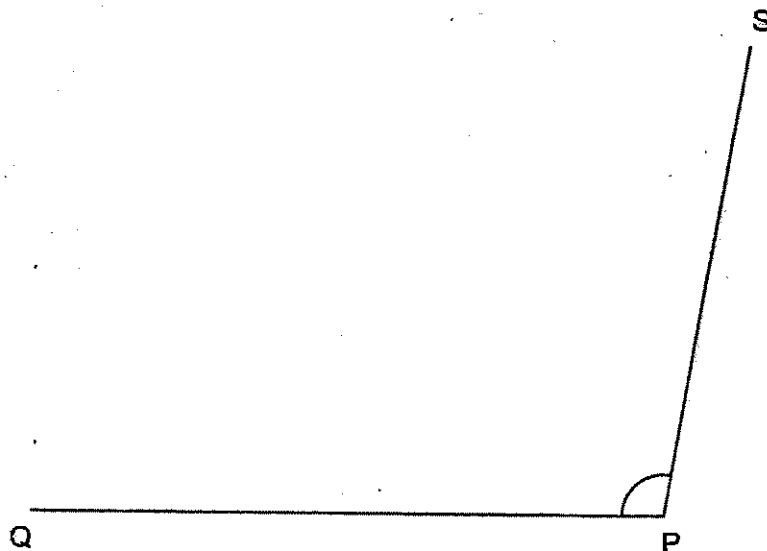
(b)   Measure and write down the size of ∠QPS.

Ans : _____ [1]

37.   Mrs Durai wants to buy bookmarks for 3 classes of pupils. There are 35 pupils in each class. For every 4 bookmarks she buys, she gets another one free.

(a)   How many bookmarks does she need if each pupil gets 1 bookmark?

(b)   4 bookmarks cost $2. What is the least amount she needs to pay?

Ans : (a) _____ [1]

(b) _____ [2]

SCORE

38. A rectangular piece of cardboard measures 17 cm by 12 cm. Sushila cuts the greatest number of rectangular pieces, each measuring 3 cm by 2 cm, from the cardboard. What is the total area of all the pieces cut?

Ans : _____ [3]

39. A group of pupils were asked to choose a co-curricular activity. The pie chart represents their choices. The same of number of pupils chose Basketball and Volleyball.
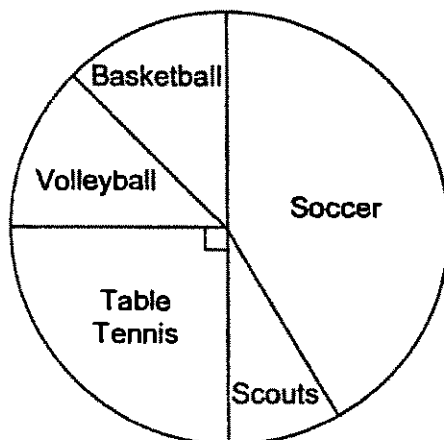
(a) 60 pupils chose Table Tennis. How many pupils chose Basketball?

(b) The ratio of the number of pupils who chose Basketball to the number of pupils who chose Soccer is 3 : 10. How many pupils chose Scouts?

Ans : (a) _____ [1]

(b) _____ [2]

SCORE

40.   Kavita had 50% fewer erasers than Mark. After Mark gave 15 of his erasers to
        Kavita, Kavita had 40% fewer erasers than Mark. How many erasers did Kavita
        have at first?

Do not write
in this space

Ans : _____ [3]

41.   The ratio of the number of Andrew's stickers to the number of Eunice's stickers
        was 1 : 5. Then their mother gave Eunice 12 more stickers and Andrew 5 more
        stickers. The ratio of the number of Andrew's stickers to the number of Eunice's
        stickers became 1 : 4. How many stickers did Andrew have in the end?

Ans : _____ [3]

SCORE

42.   The figure below shows a park which is made up of a triangular fitness area,
       a rectangular pond and a field in the shape of a trapezium. The length of the
       pond is twice its breadth.
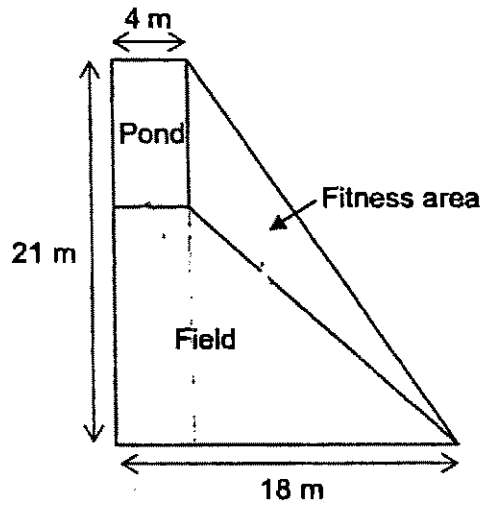
(a)   The cost of fencing material is $3 per metre. How much will it cost to fence
       up the pond?

(b)   What is the area of the park?

Ans : (a) _____ [2]

       (b) _____ [2]

SCORE

43. Taufik arranged a rectangle and a square and painted them in three colours as shown in the figure below. The ratio of the area of the rectangle to that of the square is 3 : 1. The ratio of the area of the red part to that of the blue part is 4 : 1. The length of the square is 9 cm.

(a)   What is the area of the purple part?

(b)   What is the ratio of the area of the purple part to that of the figure?
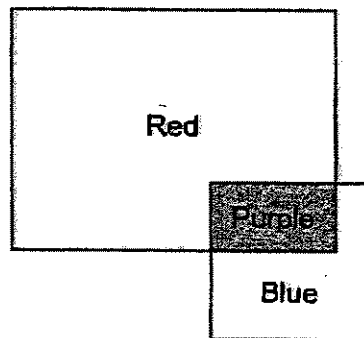
Ans : (a) _____ [3]

         (b) _____ [1]

SCORE

44.   The figure below is made up of a rectangle, a semi-circle and 4 identical quadrants.

    (a)   What is the total area of the shaded parts?

    (b)   What is the perimeter of the **whole figure**?

(Take $\pi = \dfrac{22}{7}$)

7 cm

Ans : (a) _____ [2]

        (b) _____ [2]
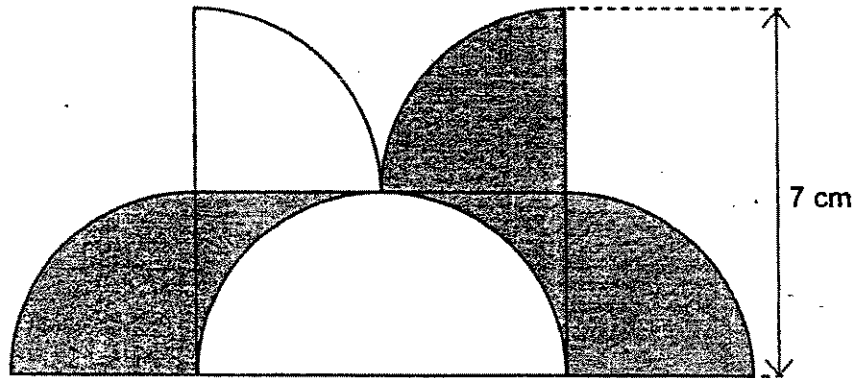
SCORE

Do not write in this space

45.   400 people took part in a camp. 73 of them were adults and the rest were
      children. $\frac{2}{5}$ of the boys and $\frac{1}{4}$ of the girls were lower primary pupils while the
      rest of them were upper primary pupils. There were 9 more upper primary girls
      than upper primary boys.

      (a)   How many upper primary pupils were there?

      (b)   What percentage of the people who took part in the camp were girls?

Ans :   (a) _____ [3]

        (b) _____ [2]

SCORE

46.   A rectangular tank measuring 60 cm by 40 cm by 20 cm was $\frac{1}{6}$ filled with water.

At 08 00, Tap A with water flowing out at a rate of 3 ℓ per minute was turned on.
At 08 02, Tap B was turned on to drain water out of the container at a fixed rate.
At 08 13, the tank was 75% filled with water. At what time would the tank be filled
to the brim? (1 ℓ = 1000 cm³)
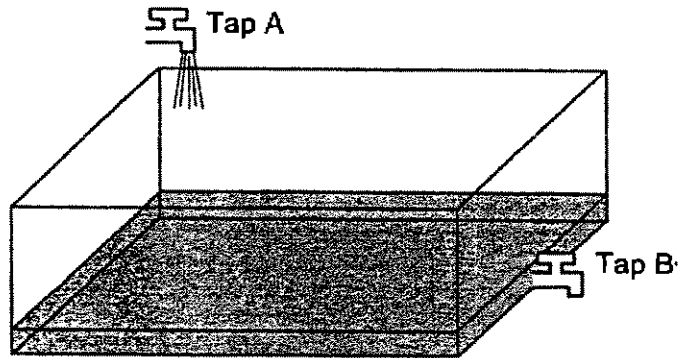
Ans : _____ [5]

SCORE

47. Najip, Kumar and Gurmit started jogging at the same time from the same starting-point round a circular track. Najip and Kumar jogged in a clockwise direction and Gurmit jogged in an anti-clockwise direction. Gurmit took 5 minutes to complete each round. Gurmit met Najip after every 3 minutes. Gurmit met Kumar after every 2 minutes. The jogging speed of each person remained the same throughout.

(a) What was the ratio of Gurmit's speed to Najip's speed to Kumar's speed?

(b) When Gurmit and Najip met again at the starting-point after 15 minutes, Kumar had already jogged 3.6 km. What is the circumference of the circular track?

Ans : (a) _____ [3]

(b) _____ [2]

SCORE

48. Mr Lim spent $1496 on some comics and dictionaries altogether. The number of comics bought to the number of dictionaries bought was in the ratio 3 : 2. A dictionary cost $4 more than a comic. The total cost of the comics was 20% more than the total cost of the dictionaries. Find the cost of a dictionary.

Do not write
in this space

Ans : _____ [5]

End of Booklet B

SCORE
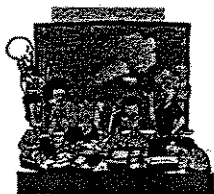
ExamSutra 考试圣经
Answer Sheets
Pei Chun /Pri 6 SA2/2007 Maths

1)1	2)2	3)3	4)4	5)4	6)3
7)4	8)1	9)3	10)1	11)4	12)2
13)1	14)1	15)3	16)43	17)2015	18)56 tickets

19)136^0 20)   21)$420   22)Library

23)A and D   24)4 lines

25)$\frac{1}{5}$ 26)18.84cm   27)90 marks

28)$17   29)72km/h   30)300%

31)$45.5cm^2$ 32)50 cubes   33)$400cm^3$

34)$30	35)64 apples	36)
36)b.100^0	37)a.105 bookmarks	37)b.$42
38)$204cm^2$	39)a.30 pupils	39)b.20pupils
40)120 erasers		41)13 stickers
42)a.$72	42)b.231m^2	43)a.27cm^2
43)b.1:11	44)a.34.125cm^2	44)b.43cm 45)a.219 pupils
45)b.38%	46)08 19	47)a.6:4:9 47)b.0.8km
48)$20		

36)
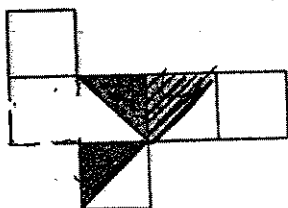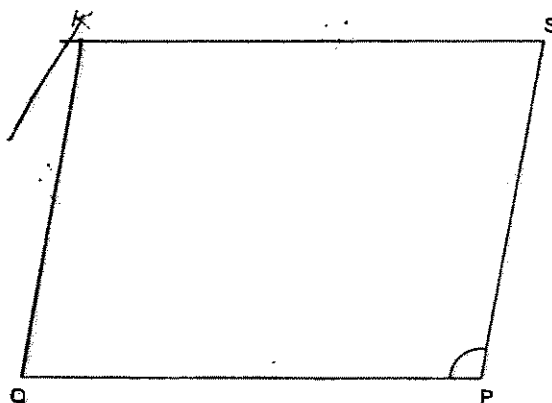
a) Measure and write down the size of ∠QPS.

Index
No.

PEI CHUN PUBLIC SCHOOL

PRELIMINARY EXAMINATION 2, 2007

MATHEMATICS

BOOKLET A

Name : _____ (   )

Class : Primary 6 ___

Date : 11 September 2007

Total Time For Booklets A & B : 2 h 15 min

INSTRUCTIONS TO CANDIDATES

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

FOLLOW ALL INSTRUCTIONS CAREFULLY.

ANSWER ALL THE QUESTIONS.

Questions 1 to 10 carry 1 mark each. Questions **11** to **15** carry 2 marks each.

For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). **Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet.**

(20 marks)

1. In 569.78, which digit is in the tenths place?

    (1) 5

    (2) 6

    (3) 7

    (4) 8   (   )

2. What is the value of $28 - 6 \times 2 + 8 \div 4$?

    (1) 18

    (2) 2

    (3) 6

    (4) 13   (   )

3. Which of the following numbers is the largest?

    (1) 7.38

    (2) 7.83

    (3) 7.038

    (4) 7.308   (   )

4. If $y = 30$, find the value of $\dfrac{y}{2} - 3 \times 2$.

    (1) 9

    (2) 12

    (3) 24

    (4) 27   (   )

5.　　In the figure below, which of the following pairs of lines are **not** perpendicular?
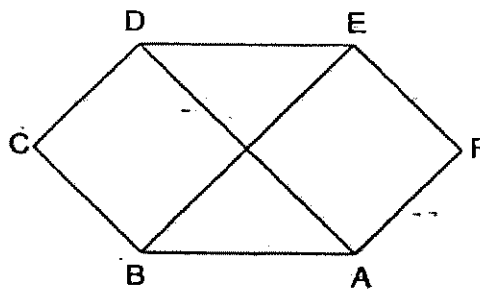
(1)　　AD and BE

(2)　　AD and DE

(3)　　BC and CD

(4)　　BE and EF　　　　　　　　　　　　　　(　)

6.　　How much more water must be added to make 2 litres?
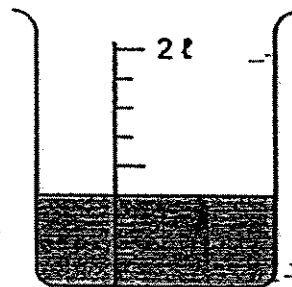
(1)　　500 ml

(2)　　750 ml

(3)　　1000 ml

(4)　　1250 ml　　　　　　　　　　　　　　(　)

7.　　A machine can print 60 cards in 3 minutes. At this rate, how many cards can it print in 1 hour?

(1)　　180

(2)　　1200

(3)　　2400

(4)　　3600　　　　　　　　　　　　　　(　)

8.   The map below shows some places around Ali's house.
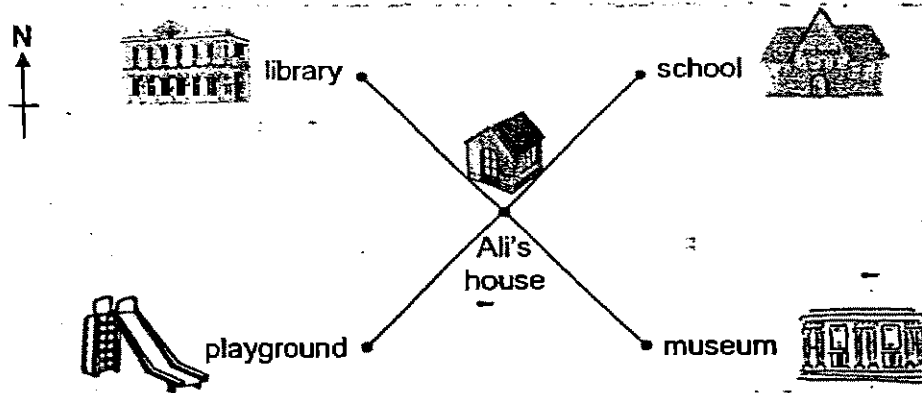
Ali's house is north-west from the _____.

(1)   library

(2)   school

(3)   museum

(4)   playground   (   )

9.   The figure shows a net of a solid.
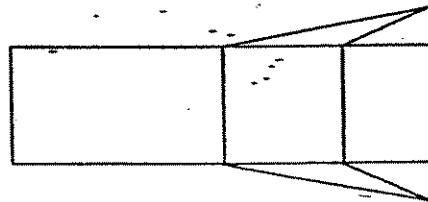
Which one of the following solids can be formed by the net?

(1)   (2)

(3)   (4)   (   )
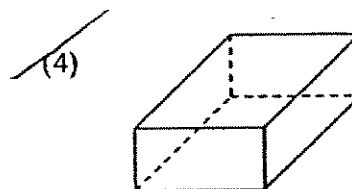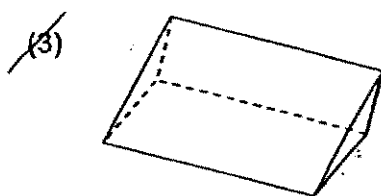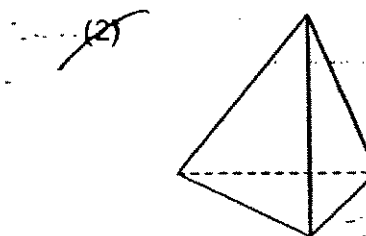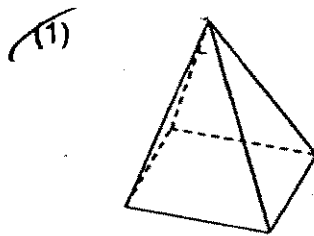
10.   After a discount of 10%, a sofa cost $1800. What was the price of the sofa before the discount?

       (1) $200

       (2) $1620

       (3) $1980

       (4) $2000   (   )

11.   Mr Loy bought a bag of sweets for his pupils. He gave each pupil 3 sweets and had 12 sweets left. So, he gave one more sweet to each pupil but was short of one sweet. How many sweets did he buy?

       (1)   51

       (2)   50

       (3)   45

       (4)   44   (   )

12.   In the figure, PQRS is a rectangle. $\angle RPT = 65°$, TS = SP and TSR is a straight line.
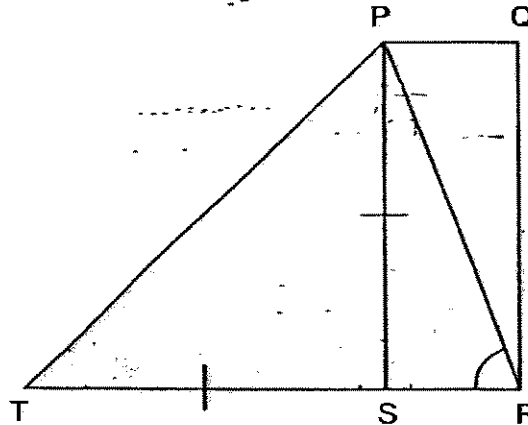
       Find $\angle PRS$.

       (1)   20°

       (2)   45°

       (3)   65°

       (4)   70°   (   )

13. Shiqi spent 5 days folding paper stars for her mother. Each day, she folded 3 paper stars more than the day before. She folded a total of 65 paper stars. How many paper stars did she fold on the last day?

   (1)   7

   (2)   11

   (3)   13

   (4)   19   (   )

14. Look at the number pattern below.

A	B	C	D
0		1	
	3		2
4		5	
	7		6
...	...	...	...

   In which column will you find the number 1205?

   (1)   A

   (2)   B

   (3)   C

   (4)   D   (   )

15. Find the area of the shaded shape below.

1 cm
1 cm
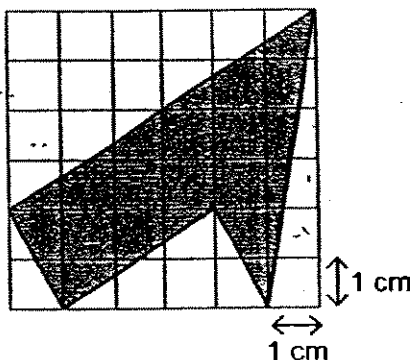
   (1)   12 cm^2

   (2)   16 cm^2

   (3)   20 cm^2

   (4)   22 cm^2 (   )

End of Booklet A

Index No. ☐ ☐ ☐ ☐ ☐ — ☐

PEI CHUN PUBLIC SCHOOL

PRELIMINARY EXAMINATION 2, 2007

MATHEMATICS

BOOKLET B

Name : _____ (   )

Class : Primary 6 ___

Date : 11 September 2007

Total Time For Booklets A & B : 2 h 15 min

Booklet A	20
Booklet B	80
T O T A L	100

INSTRUCTIONS TO CANDIDATES

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

FOLLOW ALL INSTRUCTIONS CAREFULLY.

ANSWER ALL THE QUESTIONS.

Questions **16** to **25** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

16.   Write forty-two thousand and sixteen in figures.

Ans : _____

17.   There are 254 708 people living in Happy Town. Express this number to the nearest ten thousand.

Ans : _____

18.   Find the value of 12.6 + 4.75.

Ans : _____

19.   Express $\dfrac{240}{400}$ as a percentage.

Ans : _____ %

SCORE

20. Find the value of $\dfrac{7}{12} - \dfrac{1}{4}$.

Ans : _____

21. Express $\dfrac{2}{5}$ hour in minutes.

Ans : _____ min

22. The pattern in the box shows part of a tessellation. Extend the tessellation by drawing two more unit shapes in the space provided within the box.
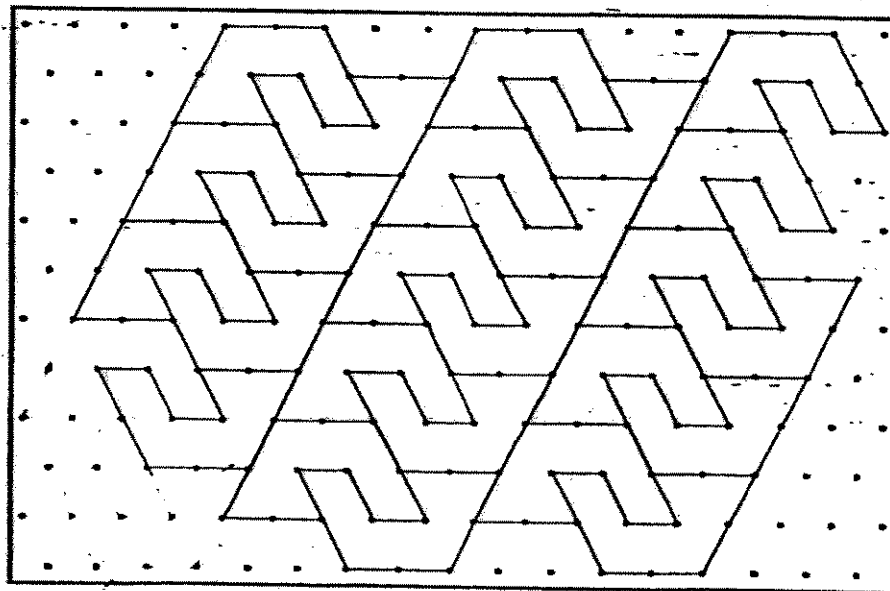
SCORE

23. Shade **two more** squares to complete the figure which has the line XY as a line of symmetry.
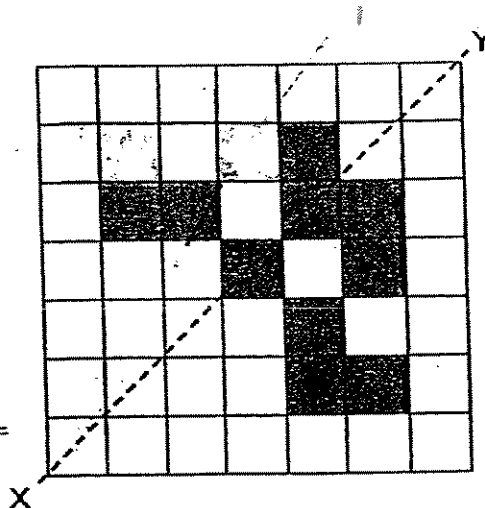
24. Find $\angle x$ in the figure below.
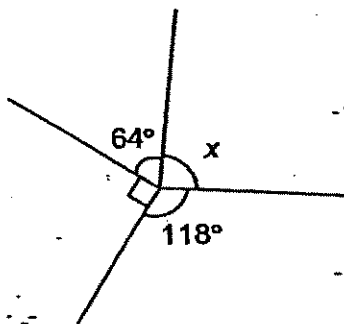
Ans : _____

25. The area of the shaded face of the cube shown is 49 cm^2. What is the volume of the cube?
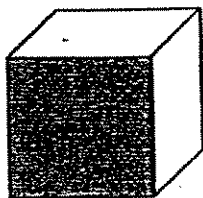
Ans : _____ cm^3

SCORE

Questions 26 to 35 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.   (20 marks)

26.   In the space below, draw a triangle in which AB = 5 cm and ∠BAC = 70°.
       The line AC has been drawn for you.

A   C

27.   Peiling made 265 cookies. She packed all the cookies into packets of 7 with some
       left over. How many cookies were left over?

                                                 Ans : _____

28.   John used some wire to make the isosceles triangle shown in the figure. He had
       14 cm of wire left. What was the length of the wire that he had at first?

                                                                8 cm

                                         12 cm
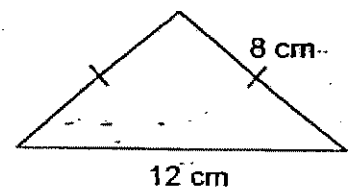
                                                 Ans : _____ cm

29.   The solid below is made up of 2-cm cubes. What is the volume of the solid?

Do not write
in this space
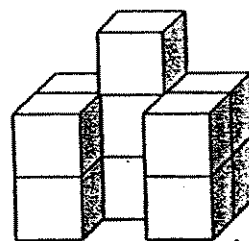
Ans : _____ cm³

30.   Chicken sausages are sold at $2.35 per 100 g at a supermarket. What is the price of 1.5 kg of sausages?

Ans : $ _____

31.   The table shows the parking charges at a car park.

Parking Charges	
For the first hour	$1.20
For every additional $\frac{1}{2}$ hour	$0.40

Zarina parked her car in the car park from 11 a.m. to 2.30 p.m.
How much did she pay?

Ans : $ _____

SCORE

32.   Jing Jing made a necklace using a total of 144 red, yellow and orange beads.
       She used 1 red bead and 3 yellow beads for every 5 orange beads. How many
       yellow beads did she use?

Ans : _____

33.   Santosh had three times as many stickers as Tahir. When Tahir gave $\frac{1}{3}$ of his
       stickers to Santosh, what would be the ratio of the number of Santosh's stickers
       to Tahir's? Give your answer in its simplest form.

Ans : _____

SCORE

34. The figure shows a small semicircle cut out from a semicircle of diameter 16 cm. Find the area of the shaded part in terms of π.

12 cm
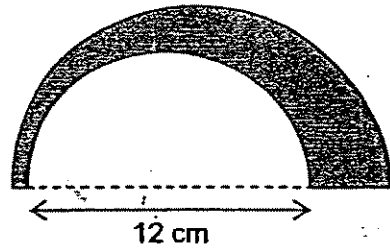
Ans : _____ cm^2

35. Mr Ho had two identical bottles completely filled with mixtures of oil and water. The ratio of the amount of oil to the amount of water in the first bottle was 2 : 1 and in the second bottle was 7 : 1. He emptied both bottles into an empty pail. What was the ratio of the amount of oil to the amount of water in the pail?

Ans : _____

SCORE

— For questions 36 to 48, show your working clearly in the space below each question and
— write your answers in the spaces provided.

The number of marks available is shown in brackets [ ] at the end of each question or
part-question.   (Total: 50 marks)

36.   The pie chart represents the number of four types of balls kept in a storeroom.
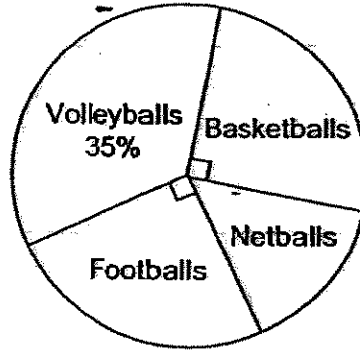
(a)   What percentage of the balls were netballs?

(b)   There are 30 basketballs. Find the number of volleyballs.

Ans : (a) _____ [1]

(b) _____ [2]

37.   A factory needs to make a certain number of shirts in 3 days. If the factory makes
       280 fewer shirts per day, it will take 5 days to finish making the shirts. How many
       shirts does the factory need to make?

Ans : _____ [3]

SCORE

38.   The graph shows the amount of money collected from the sales of files in 5 months.   Do not write in this space
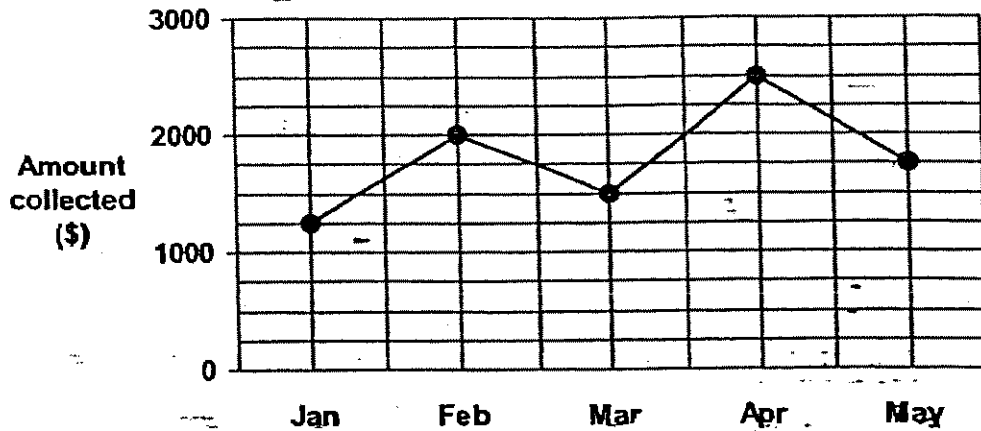
(a)   What was the decrease in the amount collected from April to May?

(b)   Each file was sold at $6. How many files were sold from January to May?

Ans : (a) _____ [1]

(b) _____ [2]

39.   The diagram below shows a net of a cuboid which is made up of four identical rectangles and two identical squares. Find the volume of the cuboid.

18 cm

42 cm
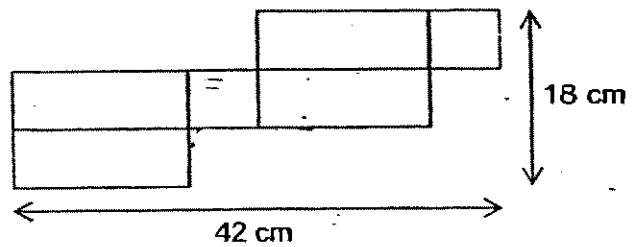
Ans : _____ [3]

SCORE

40.   Brian and Sonia had 48 books altogether. After Brian bought another 7 books and
      Sonia gave away 5 of hers, Brian had 18 more books than Sonia. How many books
      did Brian have at first?

Ans : _____ [3]

41.   In the figure, ABCD is a parallelogram, CFGH is a rhombus and CD = CE.
      CBH, CFE and DFAG are straight lines.

      (a)   Find ∠ DCF.

      (b)   Find ∠ EDF.
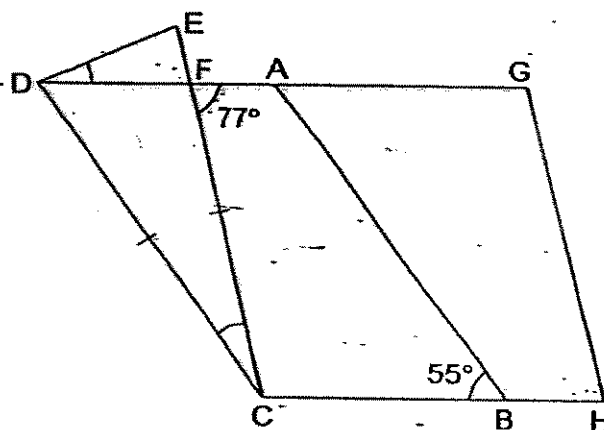
Ans :   (a) _____ [2]

       (b) _____ [2]

SCORE

42.   Ann poured 4 full pails of water into an empty rectangular tank which is 80 cm long and 30 cm wide. She then used a hose to fill the tank with more water until the water level reached a height of 12 cm. When Ann took 2 full pails of water from the tank, the water level fell by 1.5 cm.

   (a)   Find the volume of a full pail of water.

   (b)   How much of the water in the tank was filled up using the hose?
          Give your answer in litres.

12 cm

Ans : (a) _____ [2]

          (b) _____ [2]
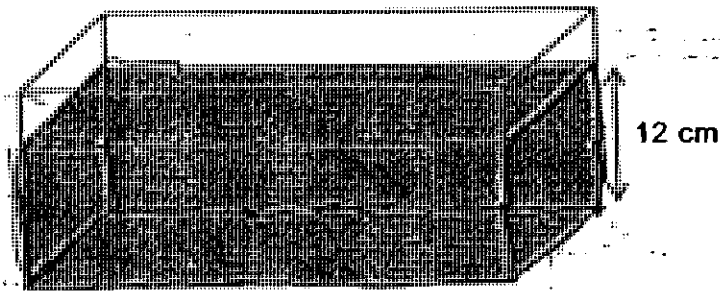
SCORE

Do not wi
in this sp:

43. Four identical circles of radius 7 cm are arranged as shown below.

Find
(a) the perimeter of <u>one</u> shaded part and

(b) the total area of <u>all</u> the shaded parts.
(Take $\pi = \dfrac{22}{7}$)
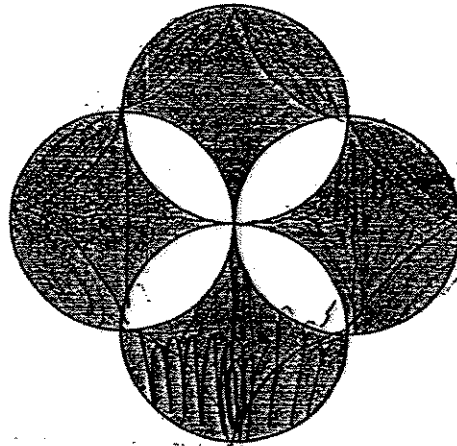
Ans : (a) _____ [2]

(b) _____ [2]

SCORE

44. The ratio of the number of guppies to the number of goldfish in Mr Chua's pond was 2 : 3. When he added a total of 70 guppies and goldfish into the pond, the ratio became 4 : 3 and the number of guppies became 100. How many goldfish did Mr Chua add into the pond?

Ans : _____ [4]

SCORE

45.   Debra played a computer game in which she fired rockets at planes.
      For every rocket that hits an enemy plane, she gets 7 points.
      For every rocket that hits one of her own planes, she loses 2 points.
      When a rocket does not hit any plane, she does not get or lose any point.

      Debra fired 392 rockets. 65 of them did not hit any plane. At the end of the game,
      she scored a total of 1650 points. How many enemy planes did she hit?

Ans : _____ [4]

SCORE

Do not write in this space

46.   Neil made a journey from City X to City Y. He covered $\frac{1}{3}$ of the journey in $1\frac{1}{2}$ h. In the next $2\frac{1}{4}$ h, he covered another $\frac{2}{5}$ of the journey. He then took 1 h 15 min to travel the remaining 96 km. Find his average speed in km/h for the whole journey.

Ans: (a) _____ [2]

(b) _____ [3]

SCORE

47. In July, Pauline spent 20% of a sum of money on tuition, 60% on food and saved the rest. In August, the sum of money was increased by 15%. She spent the same amount of money on tuition but increased her savings by 30%. She saved $390 in August.

(a) How much money did she spend on tuition in July?

(b) How much did she spend on food in August?

Ans : (a) _____ [2]

(b) _____ [3]

SCORE

48.   Chun Ying used 2-cm square tiles to make rectangles as shown below.

Do not write
in this space

Long side

2 cm

2 cm

Pattern 1   Pattern 2   Pattern 3
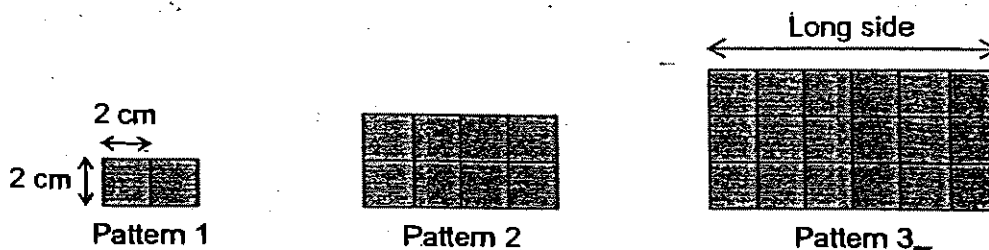
The table shows the number of tiles used for each pattern.

(a)   Complete the table above for Pattern 4 and Pattern 5.   [2]

(b)   The length of the rectangle of a certain pattern is made up of 50 tiles.
       Find the perimeter of this rectangle.

(c)   What is the area of the rectangle formed in Pattern 96?

(b) _____ [1]

(c) _____ [2]

End of Booklet B

SCORE
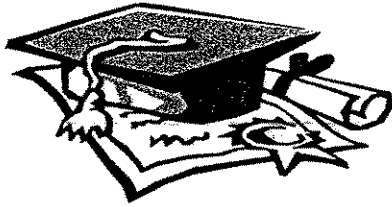
ANSWER SHEET

PEI CHUN PRIMARY SCHOOL – PRIMARY 6 MATHEMATICS 2007
PRELIMINARY EXAMINATION (2)

1.	3	24) 88°
2.	1	25) 343cm3
3.	2	26) B
4.	1	
5.	2	
6.	4	
7.	2	
8.	3	
9.	3	27) 6
10.	4	28) 42cm
11.	1	29) 88cm3
12.	4	30) $35.25
13.	4	31) $3.20
14.	3	32) 48
15.	2	33) 5:1
16.	42016	
17.	250000	
18.	17.35	
19.	60%	
20.	1/3	
21.	24MIN	
22.		
23.		

34) area→1/2x л x16/2x16/2-1/2x л x12/2x12/2
        =1/2x л x8x8-1/2x л x6x6
        =32 л -18 л
        =14 л cm2
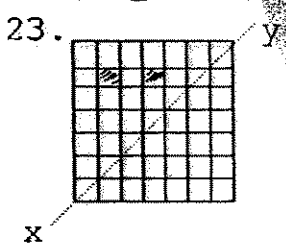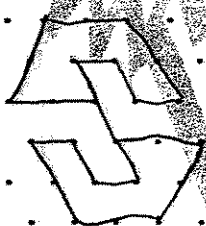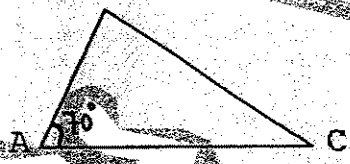
35) 37:11

36) a) 100%-25%-25%-35%=15%
    b) 25%-->30
       50%-->30/5=6
       35%-->6x7=42

37) 2 units→280x5=1400
    1 unit→1400/2=700
    700x3=2100

38) a) d→$2500-$1750=$750
    b) total amount→$1250+$2000+$2500+$1500=$9000
       =1250files→$9000/$6=$1500

39) B→18/3=6
    L→(42-6-6)÷2=15
    H→6
    Volume→6x6x15=540cm3

40) 27

41) a) 180° -55° =125°
       180° -77° =103°
       ∠DCF=125° -103° =22°
    b) (180° -22°)÷2=79°
       ∠EDF=79° -55° =24°

42) a) volume→1.5cmx80cmx30cm÷2=1800cm3
    b) 4pails→1800cm3x4=7200cm3
       80cmx30cmx12=28800cm3
       28800cm3-7200cm3=21600cm3
       =21.6 l

43) a) p→1/2x22/7x(7x2)+1/2x22/7x(7x2)
       =22/7x14=44cm
    b) 1/4x22/7x7x7=38.5
       38.5x8=308
       7x7=49
       49-38.5=10.5
       10.5x8=84
       308+84=392cm2

44) Fishes (After)→100/4x7=175
                   175-70=105
    Gold fish (after)→100/4x3=75
    Gold fish (before)→105/5x3=63
                   75-63=12

45) 392-65=327
    If all hit enemy plane→327x7=2289
    2289-1650=639
    639/7points 2 pants=71
    327-71=256

46) a) 360km
    b) 72km/h

47) a) saving (before)→100%-20%-60%=20%
       Saving (after)→30/100x20%+20%=26%
       26%-->$390
       1%-->$390/26=$15
       20%-->$300
    b) 1%-->$15
       100%-->$1500
       115%-->$1725
       100%-->$1725
       100%-26%-20%=54%
       $1725-$390-$300=$1035

48) a) 32,50
    b) 50/2=25
       B→25 tiles
       L→50 tiles
       P→25x2cmx2+50cmx2cm
       x2=100cm+200cm
       =300cm
    c) 96x8=768
       768x96=73728cm2

---end---

PEI HWA PRESBYTERIAN PRIMARY SCHOOL
2007 CONTINUAL ASSESSMENT 1
MATHEMATICS
PRIMARY 6

Name   : _____ (   )

Class   : _____ (6)

Date   : _____

Parent's Signature   : _____

BOOKLET A

Total time for Booklet A and B   : 2 hour 15 minutes

Booklet	Type	Max. Marks	Marks Obtained
A	Multiple-Choice	20	
B	Short-answer	30	
	Structured / Long-answer	50	
Grand Total		100	

INSTRUCTIONS TO CANDIDATES

- Do not turn over this page until you are told to do so.
- Follow all instructions carefully.
- Answer all questions.
- Shade your answers in the Optical Answer Sheet (OAS) provided.
- Check your work carefully.

Pei Hwa Presbyterian Primary School
2007 Continual Assessment 1
Mathematics
Primary 6

Booklet A

Section A: (20 marks)

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and shade the correct oval accordingly on the Optical Answer Sheet provided.

1.   A machine can print 12 pages in a minute.
      How many pages can it print in an hour?

      (1)   72
      (2)   144
      (3)   180
      (4)   720   (   )

2.   Andy, Bryan and Clement shared $1800 in the ratio 2 : 3 : 4.
      How much money did Bryan receive?

      (1) $200
      (2) $400
      (3) $600
      (4) $800   (   )

3.   At a fair, the number of toys at Stall A was twice the number of toys at Stall C.
      The number of toys at Stall B was five times the number of toys at Stall C.
      What is the ratio of the number of toys at Stall A to the number of toys at Stall B to the number of toys at Stall C?

      (1)   1 : 2 : 5
      (2)   2 : 5 : 1
      (3)   10 : 5 : 1
      (4)   2 : 10 : 1   (   )

1

4.   For every 10 parcels Company A delivered, 2 were delivered late.
      Express the number of parcels that were delivered on time as a fraction of the
      total number of parcels delivered.

      (1) $\dfrac{1}{5}$

      (2) $\dfrac{1}{6}$

      (3) $\dfrac{4}{5}$

      (4) $\dfrac{5}{6}$

                                                                    (   )

5.   The table below shows the number of vehicles sold by Mr Tan from August to
      December last year.

Month	August	September	October	November	December
Number of vehicles	12	25	50	42	21

      In which month did Mr Tan sell half as many vehicles as the month before?

      (1)   September
      (2)   October
      (3)   November
      (4)   December

                                                                    (   )

6.   Express y km 70 m in metres.

      (1)   70y
      (2)   y + 70
      (3)   1000y + 70
      (4)   1070y

                                                                    (   )

2

7. The diagram below is not drawn to scale. It is made up of 2 triangles.
    The area of Triangle A is 4 times the area of Triangle B.
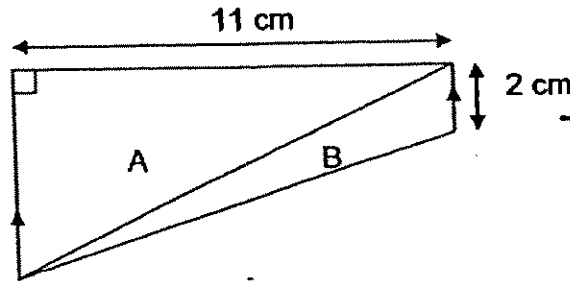
    What is the area of Triangle A?

    (1)   11 cm^2
    (2)   22 cm^2
    (3)   44 cm^2
    (4)   88 cm^2

                                                                (. . .)

8. Gigi used half of her pocket money to buy a key chain and $\frac{1}{3}$ of the remainder to
    buy a pencil. What is the ratio of the cost of the key chain to the cost of the pencil?

    (1)   1 : 3
    (2)   2 : 3
    (3)   3 : 1
    (4)   3 : 2

                                                                (   )

9. Sally's height is $1\frac{2}{3}$ times that of Jacob's.
    What is the ratio of Sally's height to their total height?

    (1)   3 : 5
    (2)   5 : 3
    (3)   3 : 8
    (4)   5 : 8

                                                                (   )

3

10. The isosceles triangle below is not drawn to scale.
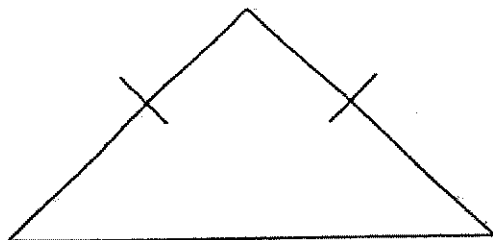
The size of the angles are in the ratio 1 : 2 : 1.
What is the size of the smallest angle?

   (1) $40°$

   (2) $45°$

   (3) $50°$

   (4) $90°$

                                    (   )

11. Peggy, Robert and Sarah share some money in the ratio 3 : 4 : 5 respectively.
If Sarah gives Peggy $a, each of them will have the same amount of money.
How much money does Robert have?

   (1) $5a

   (2) $2a

   (3) $3a

   (4) $4a

                                      (   )

12. Amina weighs x kg. Shimin is 9 kg heavier than Amina but 6 kg lighter than Qi En.
Find the total mass of the three girls in terms of x.

   (1) $(x + 3)$ kg

   (2) $(x + 15)$ kg

   (3) $(3x + 3)$ kg

   (4) $(3x + 24)$ kg

                                      (   )

4

13.   The figure below shows a triangular pyramid.
      The faces are all equilateral triangles.
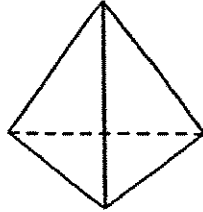
Which of the following nets shown below can be folded to form the pyramid?

(A)

(B)

(C)
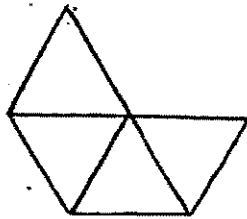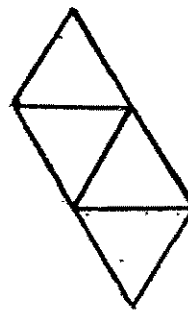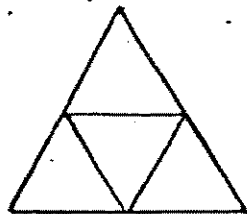
(D)

(1) A and B
(2) A and C
(3) B, C and D
(4) All of the above

(   )

5

14.   A farmer divided his land among his 3 children.

One child got $\frac{2}{3}$ of the land while the other 2 children shared the remaining land

in the ratio 3 : 7.
What is the ratio of the smallest share to the largest share of land?

    (1)   2 : 3
    (2)   2 : 7
    (3)   3 : 7
    (4)   3 : 20

                                                                (   )

15.   William is 4 years older than his 12-year-old brother.
        What is the ratio of William's age to his brother's age in 10 years' time?

    (1)   4 : 3
    (2)   8 : 11
    (3)   13 : 6
    (4)   13 : 11

                                                                (   )

6

PEI HWA PRESBYTERIAN PRIMARY SCHOOL
2007 CONTINUAL ASSESSMENT 1
MATHEMATICS
PRIMARY 6

Name   :_____ (   )

Class   :_____ (6)

Date   :_____

BOOKLET B

Question No.	Max. Marks	Marks Obtained
16 – 25	10	
26 – 35	20	
36 – 48	50	
Total	80	

INSTRUCTIONS TO CANDIDATES

- Do not turn over this page until you are told to do so.
- Follow all instructions carefully and show all workings carefully.
- Answer all questions and show all workings clearly.
- Write your answers in this booklet.
- Check your work carefully.

Pei Hwa Presbyterian Primary School
2007 Continual Assessment 1
Mathematics
Primary 6

Name: _____ (　　)   Total: / 30

Class: _____ 6   Date: 27 February 2007

Booklet B
Section B: (30 marks)
Questions 16 to 25 carry 1 mark each. Write your answer in the space provided for each question. For questions which require units, give your answers in the units stated.   (10 marks)

16.   Kelly used the calculator to find out that 537 × 99 889 = 53 640 393. What is the value of 537 × 99 890?

Answer: _____

17.   Simplify $12w + 12 ÷ 6 + 6w - 2w + 8$.

Answer: _____

18.   If $p = 6$, find the value of $\dfrac{138 - 11p}{2p}$.

Answer: _____

7

19. Xenia and Zoe have $g altogether.
     Zoe has $8 less than Xenia.
     Find the amount of money Xenia has in terms of g.

                                        Answer: $_____

20. 8 scoops of ice-cream cost $m.
     How much does Gardner pay for 6 scoops of ice-cream?
     (Express your answer in the simplest form.)

                                        Answer: $_____

21. A box contains k black pens and red pens.
     For every 4 black pens, there are 3 red pens.
     Find the number of black pens in the box.

                                        Answer: _____

22. Raisin buns were sold in packets of 5. Each packet cost $2.25.
     How many packets of raisin buns could Renee buy with $10?

                                        Answer: _____

8

23.   A baker made some custard puffs and durian puffs.
       He packed 2 custard puffs and 3 durian puffs in each box.
       He packed a total of 15 boxes.
       What fraction of the total number of puffs were custard puffs?
       (Express your answer in the simplest form.)

                                        Answer: _____

24.   Find the number of rectangular faces in the solid below.
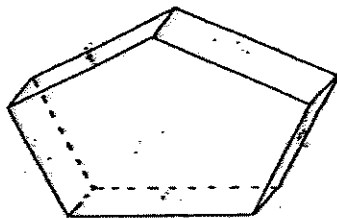
                                        Answer: _____

25.   The cube is made from the net on the right.
       Circle the correct square in the net that will appear on the base of the cube.
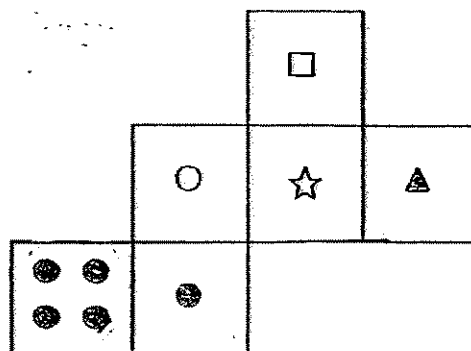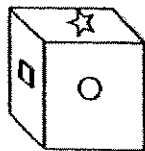
9

Questions 26 to 35 carry 2 marks each. Show your working clearly in the space below each question and write your answer in the space provided for each question. For questions which require units, give your answers in the units stated.

(20 marks)

26. Ψ and Ω represent two different whole numbers.
   If $\Psi \times \Omega = 84$, what is the smallest possible value of $\Psi + \Omega$?

   Answer: _____

27. Selena bought 5 blue pens at b ¢ each and 2 red pens for $2.
   Find the average cost of the pens that Selena bought.

   Answer: _____ ¢

28. A fence is to be built one metre away from the sides of a square field.
   Each side of the square is $3f$ m.
   Find the total length of the fence needed.

   Answer: _____ m

10
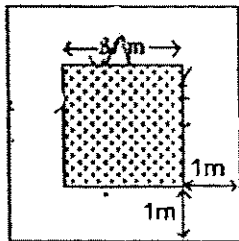
29.   Cubes A and B have the same net as shown below.
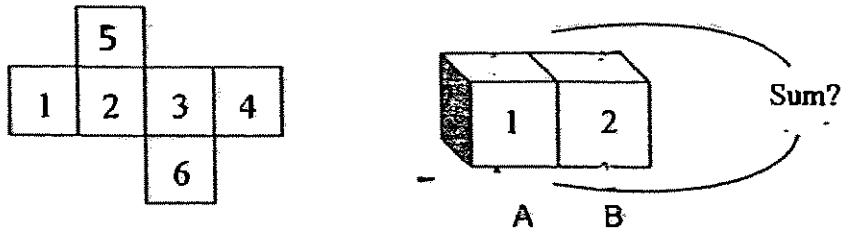
Find the sum of the numbers at the top and bottom of the 2 cubes A and B as shown above.

Answer: _____

30. $\frac{1}{3}$ of the weight of a durian is $\frac{1}{2}$ the weight of a papaya.

How many times as heavy as the papaya is the durian?

Answer: _____

31.   The ratio of Hannah's weight to Priscilla's weight is 2 : 3.
Hannah weighs 12 kg 10 g less than Priscilla.
What is their total weight in kg?

Answer: _____ kg

11

32. The parking charges at a car park are shown in the table below.

| 1st hour or part thereof | $1.20 |
| Subsequent half an hour or part thereof | $0.50 |

Mrs. Lee had to pay $3.70 for parking her car at the car park. What was the longest duration she could have parked?

Answer: _____ h

33. In a Mathematics quiz, Ann's score to Ben's score is 3 : 4 and Ben's score to Carol's score is 3 : 5.
What fraction of Ann's score is Carol's score?

Answer: _____

12

34. Esther's score in a Science test was both 12th highest and 23rd lowest in her class. How many pupils were there in her class?

Answer: _____

35. John uses his left hand to count from 1 to 10 as shown in the diagram below. Which finger does the number 402 land on?
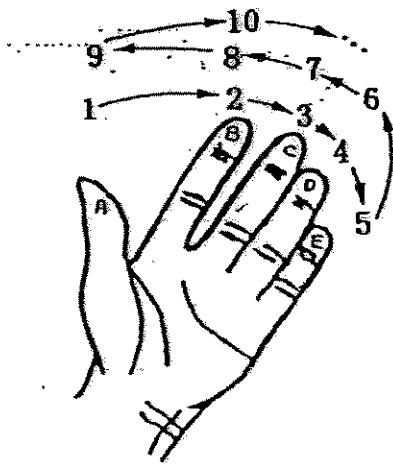
Answer: _____

13

Pei Hwa Presbyterian Primary School
2007 Continual Assessment 1
Mathematics
Primary 6

Name:_____(   )   Total: / 50

Class:_____6   Date: 27 February 2007

Booklet B
Section C: (50 marks)
For questions 36 to 48, show your working clearly in the space provided for each question and write your answer in the space provided for each question.
The number of marks available is shown in the brackets [   ] at the end of each question or part-question.   (50 marks)

36.   The figure below shows a cube with letters A to F written on it.
       Place the letters D, E and F in the net below such that they correspond to those on the cube.
       D is opposite B, E is opposite A and F is opposite C.

[3]
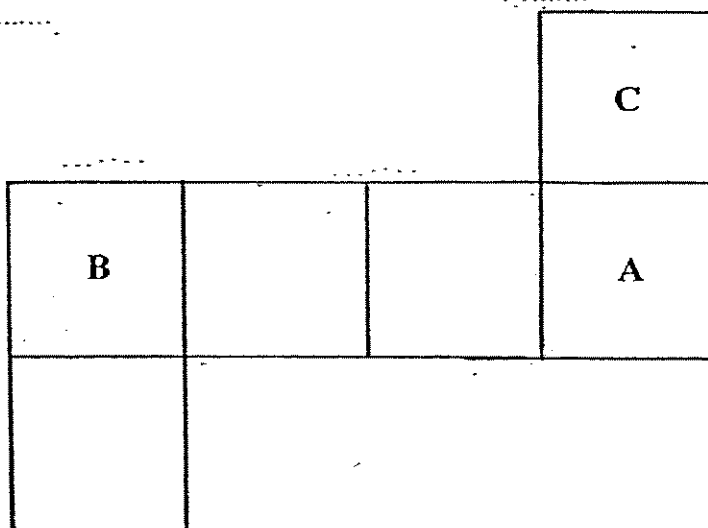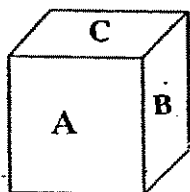
37. Gerald received 10 hongbaos during Chinese New Year.
     Five of them contained $20 each and three of them contained $12 each.
     He used the money in the remaining 2 hongbaos to buy 4 t-shirts at $12.50 each.
     How much money was there in all the hongbaos Gerald received?

Answer: _____ [3]

38. If $\frac{1}{2}$ of a number is d, what is $\frac{3}{5}$ of the number?

Answer: _____ [3]

39.   Miss Lim bought some sweets for her class.
      If she gave each pupil 4 sweets, she would have 200 sweets left.
      If she gave each pupil 7 sweets, she would have 20 sweets left.
      How many pupils are there in Miss Lim's class?

      Answer: _____ [3]

40.   Helen spent $\frac{1}{2}$ of her money on a watch. Her mother gave her $h more.

      She later spent $\frac{2}{3}$ of what she had on a skirt.

      After all her shopping, Helen had $2h left.
      (a)   What is the cost of her skirt?
      (b)   How much money did Helen have at first?

      Answer: (a) _____[1]

               (b) _____[2]

16

41.   In a hall, there are rows of chairs.
       The first row has one chair fewer than the second row.
       The second row has one chair fewer than the third row.
       This pattern carries on and there are 40 chairs in the 25th row.
       How many chairs are there in the first row?

                                           Answer: _____[3]

42.   There were 240 pupils in a hall. The ratio of the number of girls to the number of
       boys was 2 : 3. After some girls left the hall, the ratio of the number of girls to the
       number of boys became 2 : 4. How many girls left the hall?

                                           Answer: _____[4]

17

43. Baker Tan and Baker Lim bought the same number of eggs. Baker Tan used 240 eggs and Baker Lim used 165 eggs. After that, Baker Lim had four times as many eggs as Baker Tan. How many eggs did each of them have at first?

Answer: _____[4]

44. A school bus can carry a total of 30 adults or 45 children.
There were 84 adults and 50 children already seated in 5 school buses.
How many more children can be seated in these 5 school buses?

Answer: _____[4]

18

45. Joyce went to the book store with $80, which was just enough to buy 5 files and 4 notebooks. When she reached there, she bought 4 files and 5 notebooks instead and had $7 left.
Find the cost of 1 file.

Answer: _____[5]

19

46.   Jerry, Kirk and Lora had a total of 230 stamps.

Jerry lost $\frac{1}{5}$ of his stamps. Kirk received 55 more stamps as a birthday present.

Lora bought some more stamps and tripled his original number of stamps.
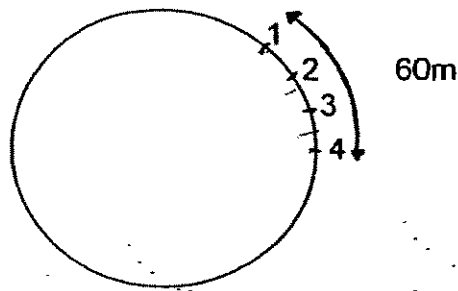The ratio of the number of stamps Jerry, Kirk and Lora had then became 2 : 3 : 6.
How many stamps did Kirk have at first?

Answer: _____ [5]

20

47.   On Day 1, Alvin had $18.
       After that day, he was given $10 daily.
       He gives his brother $2 every 3 days.
       On which day will Alvin have exactly $280?

Answer: _____ [5]

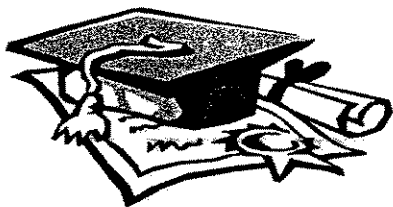48. Mr Lim planted some cherry trees in a circle with the same distance apart.
     The distance between the first and the fourth tree was 60m.
     (a)   Find the distance between the first and the tenth tree
     (b)   If 50 trees were planted and Mr Lim tied a rope to fence up the area, find
           the length of the rope needed.

Answer: (a) _____ [3]

(b) _____ [2]

End of Paper

22

ANSWER SHEET

PEI HWA PRIMARY SCHOOL   - PRIMARY 6 MATHEMATICS   2007
CONTINUAL ASSESSMENT (1)

1. 4
2. 3
3. 2
4. 4
5. 4
6. 3
7. 3
8. 3
9. 4
10. 2
11. 4
12. 4
13. 2
14. 4
15. 4
16. 53640930
17. 16w+10
18. 6
19. g+8/2
20. 3/4m
21. 4k/7
22. 4
23. 2/5
24. 5
25. ⚅
26. 7,12
27. $\frac{5b+200}{7}$
28. 1 side (3f+2)m
    Total 4 (3f+2)
29. 22
30. 1 ½ times

31) 60.05kg
32) 3 ½
33) 2 2/9
34) 34
35) B
36)

			C
B	E	D	A
	F		

37) 20x5=100
    12x3=36
    12.50x4=50.00
    50+100+36=186
    Gerald received $186
    in all the hongbaos.

38) dx2=2d
    $2 \times d \div 5 = \frac{2d}{5}$
    $2 \times d \div 5 \times 3 = \frac{2d}{5} \times \frac{3}{1}$
    $= \frac{6d}{5}$
    3 of the number is $\frac{6d}{5}$

39) 3u→200-20=180
    1u→180÷3=60
    There were 60 pupils
    in Miss Lin's class.

40) a) 1u→2h
    2u→2hx2=4h
    The cost of the
    skirt is $(4h)
    b) 1 of remainder→6h
    Before her mum gave
    her→6h-h=5h
    At first→5hx2=10h
    She had $10h at first

41) There are 16 chairs in the first now.

42) 12+8=20
    240÷20=12
    8u-6u=2u
    →12x2=24
    24 girls left the hall.

43) 240-165=75
    75÷3=25
    BL→25x4=100
    BL→100+165=265
    BT→240+25=265
    Each of them had 265 eggs at first.

44) A : C   (Adult)
    30 :45   150-84=66
    2 : 3   2u→66
    5b→5x30=150   1u→33
                    3u→99
                    99-50=48
       48 children can be seated.

45) 4fx7=28
    $80-28=52
    $52-7=45
    $45÷9=5
    5+7=12
    The cost of 1 file is $12

46) 15u→230+55=285
    1u→285÷15=19
    6u→19x6=114
    Kirk had at first→114-55=59
    Kirk had 59 stamps at first.

47) On day 29 Alvin will have exactly $280

48) a) 60÷3=20   b) 50x20=1000m
       20x9=180   The length is 1000m.
    The distance is 180m

PEI HWA PRESBYTERIAN PRIMARY SCHOOL
2007 SEMESTRAL ASSESSMENT 1
MATHEMATICS
PRIMARY 6

Name   : _____ (   )

Class -   : _____ _ 6

Date   : _____

Parent's Signature   : _____

BOOKLET A

Total time for Booklet A and B   : 2 hour 15 minutes

Booklet	Type	Max. Marks	Marks Obtained
A	Multiple-Choice	20	
B	Short-answer	30	
	Structured / Long-answer	50	
Grand Total		100	

INSTRUCTIONS TO CANDIDATES

- Do not turn over this page until you are told to do so.
- Follow all instructions carefully.
- Answer all questions.
- Shade your answers in the Optical Answer Sheet (OAS) provided.
- Check your work carefully.

Pei Hwa Presbyterian Primary School
2007 Semestral Assessment 1
Mathematics
Primary 6

Booklet A
Section A: (20 marks)
Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and shade the correct oval accordingly on the Optical Answer Sheet provided.

1.   A sum of money was shared among Ross, David and Tom in the ratio of 3 : 4 : 7. What fraction of David's share was Tom's share?

     (1) $\dfrac{3}{4}$

     (2) $\dfrac{3}{7}$

     (3) $\dfrac{4}{7}$

     (4) $\dfrac{7}{4}$

                                                      (   )

2.   The table below shows the time taken by four runners in a 400m race.

Amanda	Louis	Nick	Susan
1½ min	3 min	96 s	1 min 24s

Who is the fastest runner?

     (1)   Amanda

     (2)   Louis

     (3)   Nick

     (4)   Susan

                                                      (   )

1

3.   Adrian had 2 kg 40 g of flour. He used 25% of it to bake a cake.
     How much flour did he use?

     (1)   60 g

     (2)   408 g

     (3)   510 g

     (4)   600 g

                                                                    (   )

4.   Boa's salary is 60% of Rain's salary.
     If Boa's salary is $1 200, what is Rain's salary?

     (1) $720

     (2) $1 680

     (3) $1 920

     (4) $2 000

                                                                    (   )

5.   During a sale, the price of a pair of shoes was reduced from $125 to $100.
     Find the percentage decrease in price.

     (1)   20%

     (2)   25%

     (3)   75%

     (4)   80%

                                                                    (   )

6.   Jordan has $200. Bob has 20% more than Jordan and twice as much as Michael.
     What percentage of Jordan's money is Michael's money?

     (1)   60%

     (2)   62.5%

     (3)   120%

     (4)   160%

                                                                    (   )

2

7. The number of June Ting's marbles was 50% the number of Shi Ming's marbles.
    After Shi Ming gave 5 marbles to June Ting, the number of Shi Ming's marbles
    decreased by 25%.
    How many more marbles did Shi Ming have than June Ting at first?

    (1)   10
    (2)   20
    (3)   50
    (4)   40

                                                                    (   )

8. Keanu drove for 2 hours at an average speed of 75 km/h.

    During this time, he travelled $\frac{2}{5}$ of the journey.

    What was the distance for the whole journey?

    (1)   60 km
    (2)   150 km
    (3)   225 km
    (4)   375 km

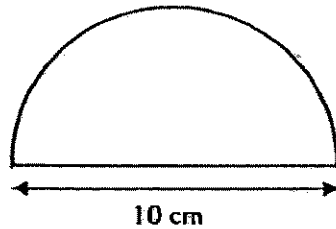   (   )

9. Trisha jogged at an average speed of 6 km/h for a distance of 2 400 m.
    Find the time taken in minutes.

    (1)   400
    (2)   24
    (3)   2.4
    (4)   0.4

                                                                    (   )

3

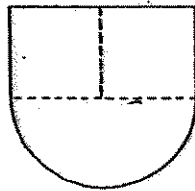10. Find the perimeter of the semi-circle below. Take π as 3.14.

10 cm

(1) 15.7 cm
(2) 25.7 cm
(3) 31.4 cm
(4) 41.4 cm

(   )

11. The figure below is made up of two squares and a semi-circle.
Each side of the square is 7 cm. Find the perimeter of the figure.

(Take $\pi = \dfrac{22}{7}$)

(1) 50 cm
(2) 72 cm
(3) 78 cm
(4) 100 cm

(   )

12. Qi En made some cheese buns to sell at her shop.
She sold 40% of the buns on Friday and $\dfrac{2}{5}$ of the remainder on Saturday.
What percentage of the buns did she sell?

(1) 24%
(2) 36%
(3) 64%
(4) 70%

(   )

4

13. The table below shows how Elicia spent her pocket money last week.

Expenditure	Transport	Stationery	Food	Books
Amount ($)	14	8	10	?

Elicia spent 20% of her pocket money on transport and food.
How much did she spend on books?

(1) $78

(2) $88

(3) $96

(4) $120

(   )

14. A part of the concert programme planned for Teachers' Day is shown below.

Time	Item
7.35 a.m.	Speech by Principal
7.50 a.m.	Skit by Pri 6E
8.25 a.m.	Dance by Pei Pei Super Dance Troupe

On the day of the concert, Pri 6E took 8 minutes more to perform the skit than planned. How long did the skit last?
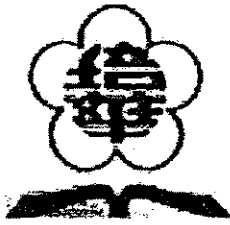
(1) 53 minutes

(2) 43 minutes

(3) 33 minutes

(4) 27 minutes

(   )

15. Ali drove at a speed of $10y$ km/h for an hour. He then doubled his speed to cover the next $60y$ kilometres. What was his average speed for the whole journey?

(1) $3y$ km/h

(2) $15y$ km/h

(3) $17\frac{1}{2}y$ km/h

(4) $70y$ km/h

(   )

5

PEI HWA PRESBYTERIAN PRIMARY SCHOOL
2007 SEMESTRAL ASSESSMENT 1
MATHEMATICS
PRIMARY 6

Name   :_____ (   )

Class   :_____ 6

Date   :_____

BOOKLET B

Question No.	Max. Marks	Marks Obtained
16 – 25	10	
26 – 35	20	
36 – 48	50	
Total	80	

INSTRUCTIONS TO CANDIDATES

- Do not turn over this page until you are told to do so.
- Follow all instructions carefully and show all workings carefully.
- Answer all questions and show all workings clearly.
- Write your answers in this booklet.
- Check your work carefully.

Booklet B
Section B: (30 marks)
Questions 16 to 25 carry 1 mark each. Write your answer in the space provided for each question. For questions which require units, give your answers in the units stated.   **(10 marks)**

16.   Express 0.5% as a decimal.

Answer:_____

17.   What is 15% of 170?

Answer: _____

18.   At a sale, the price of an X-Box was reduced by 15% to $680.
       What was the price of the X-box before discount?

Answer: $_____

19.   In a quiz, Stilton answered 60% of the questions correctly.
       He answered 12 of the questions wrongly.
       How many questions were there in the quiz?

Answer: _____

6

20. In a box, there are 4 blue pens and 3 red pens to every green pen.
If there are 112 pens altogether, how many red pens are there?

Answer: _____

21. Stella left her house for the library at 10 45 h.
The journey took her 1 h 40 min.
What time would she arrive at the library?
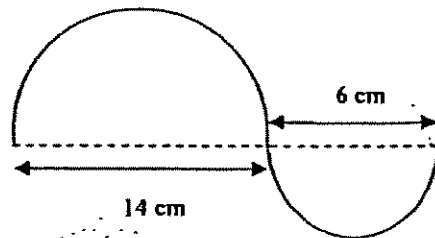
Answer: _____

22. Asman jogs 200 metres in 4 minutes.
What is his speed?

Answer: _____km/h

7

23. Mr. Loh travelled from Singapore to Kuala Lumpur at an average speed of 90 km/h for $3\frac{1}{2}$ hours.

If he wanted to return to Singapore in 3 hours, at what speed should he travel?
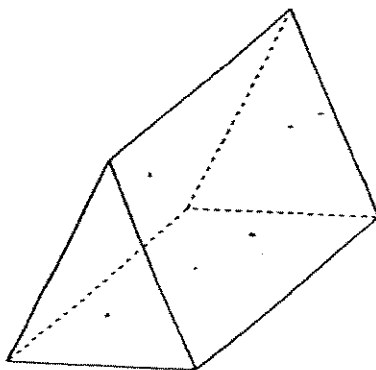
Answer: _____ km/h

24. The curve, not drawn to scale, is made up of 2 semi-circles as shown below.

Find its length. (Leave your answer in terms of π.)

Answer: _____ cm

25. Look at the diagram below.
How many more rectangular than triangular faces are there?

Answer: _____

8

Questions 26 to 35 carry 2 marks each. Show your working clearly in the space below each question and write your answer in the space provided for each question. For questions which require units, give your answers in the units stated.

(20 marks)

26. A packet of sugar was shared between Navela and Yasmin in the ratio 1 : 3.

Navela used $\frac{1}{2}$ of her share to make jelly and had m kg left.

How much was Yasmin's share?

Answer: _____ kg

27. There were as many boys as girls in the hall at first.
12 more boys came into the hall and the total number of children increased by 20%. How many **boys** were in the hall at first?

Answer: _____

28. There are 10% more tea bags than coffee bags in a drawer.
If there are 231 tea and coffee bags in the drawer, how many tea bags are there?

Answer: _____

9

29.   Serene had $100.
       She spent 60% of the money on clothes and 60% of the remainder on CDs.
       How many per cent more did she spend on clothes than on CDs?

                                                      wer: _____%

30.   Gloria is 20% heavier than Henna and Henna is 20% heavier than Izzy.
       How many per cent heavier is Gloria than Izzy?

                                                      Answer: _____%

31.   Diana began watching a movie which started at 11.45 a.m.
       After the movie, she took 50 minutes to walk home from the cinema.
       She reached home at 2.25 p.m. How long was the movie?

                                                      Answer: _____fi_____min

10

32.   Bibi cycled at 28 km/h for $\frac{3}{4}$ hour. She also jogged at 12 km/h for 45 minutes.
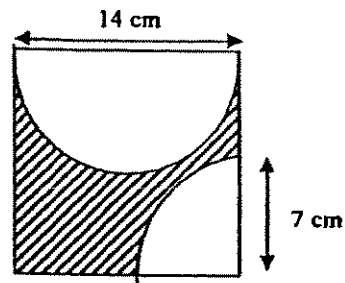
Find the average speed of Bibi for the two activities.

Answer: _____ km/h

33.   Joe swam 600 m at a speed of 25 m/min.

If he started at 7.45 a.m., at what time did he stop swimming?

Answer: _____

11

34. The figure, not drawn to scale, shows a square, a semi-circle and a quadrant.

14 cm

7 cm

Find the perimeter of the shaded part. (Take $\pi = \dfrac{22}{7}$)

Answer: _____ cm

35. To travel from Singapore to Port Dickson, Takashi can take a plane, a train or a car. To travel from Port Dickson to Penang, he can take a plane, a train, a car or a ferry.

How many different ways can Takashi take to travel from Singapore to Penang?

Answer: _____

12

Pei Hwa Presbyterian Primary School
2007 Semestral Assessment 1
Mathematics
Primary 6

Name: _____ (   )   Total: / 50

Class: _____ 6   Date: 4 May 2007

Booklet B
Section C: (50 marks)
For questions 36 to 48, show your working clearly in the space provided for each question and write your answer in the space provided for each question.
The number of marks available is shown in the brackets [   ] at the end of each question or part-question.   **(50 marks)**

36.   Frank had $30. He bought 5 pencils which cost *k* cents each.
       How much money had he left? Give your answer in dollars.

Answer: _____[3]

13

37. Fern and Wilbur shared 189 sweets in the ratio 4 : 5.

Fern gave some of her sweets to Wilbur and the new ratio of Fern's sweets to Wilbur's sweets became 2 : 5. How many sweets did Fern give to Wilbur?

Answer:_____[3]

38. In a club, the number of men increased by 20% to 600 and the number of women decreased by 20% to 600.

(a) Find the number of men in the club at first.

(b) What was the overall increase or decrease in the total membership of the club?

Answer: (a) _____[1]

(b) _____[2]

14

39.   An aeroplane took off from Singapore at 9.15 p.m. on Saturday. It landed in Perth
       at 8.45 a.m. Australian time on Sunday. The time in Perth, Australia is 3 hours
       ahead of the time in Singapore. How long was the flight?

                                                        Answer: _____[3]

40.   The average age of 4 men was 40 years old.
       None of the men was younger than 25 years old.
       What was the largest possible age of the oldest man in the group?

                                                        Answer:_____[3]

15

41. Jenny wants to tape three similar cans together with some sticky tape as shown below.
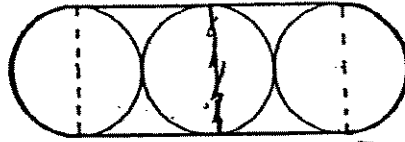
The diameter of each can is 14 cm.

Find the length of the sticky tape she needs. (Take $\pi = \dfrac{22}{7}$)

Answer: _____ [3]

42. Samuel took a 5-cm cube and cut out a 1-cm cube from each of its 6 faces. What is the surface area of the remaining figure as shown in the diagram below?

Answer: _____ [4]

16
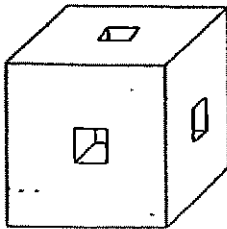
43. Rowena travelled from Higgety Town to Lollipop Town.
She covered the first 135 km at 90 km/h and completed the remaining journey at 80 km/h for $1\frac{1}{2}$ h. Sabrina took another route and she travelled 15 km less than the route Rowena travelled.
If Sabrina's average speed for her whole journey was 96 km/h, how much less time did Sabrina take to complete the journey than Rowena?

Answer: _____ [4]

17

44.   Baker Tan baked some cookies to sell.
       She baked 10% of the cookies on the first day.
       On the second day, she baked 25% more than on the first day.
       She baked 9 more cookies on the third day than on the second day.
       By then, she had baked 50% of the cookies.
       How many cookies did she bake in all?

                                              Answer: _____ [4]

45. Stephanie and Tanya shared $64 between themselves. When their mother gave them another $10 each, Tanya had 32% less money than Stephanie.
    (a) How much money had Tanya in the end?
    (b) What was the ratio of Tanya's money to Stephanie's money at first? Give your answer in the simplest form.

Answer: (a)_____ [2]

(b)_____ [3]

19

46.   Jerry filled a 10-litre jar with syrup.

He then poured out 1 litre of the syrup from the jar and filled the jar with water.

After that, he poured out 1 litre of the mixture from the jar and refill the jar with water.

Lastly, he poured out another 1 litre of the new mixture from the jar and refilled the jar with water. What is the percentage of syrup in the jar now?

Answer:_____[5]

20

47.   Mabel and Nelly wanted to cycle to the library.

150 m	900 m

Nelly's house   Mabel's house   Library
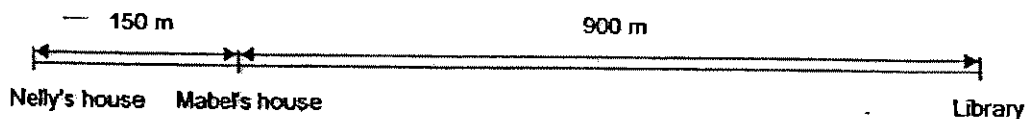
Mabel started cycling at an average speed of 50 m/min from her house. Nelly started from her house, which was 150 m behind Mabel's house. She cycled at an average speed of 75 m/min. Both of them started cycling at the same time.

(a)   When Nelly reached Mabel's house, how far was Mabel ahead of her?

(b)   The library was 900 m away from Mabel's house.

    When Nelly reached the library, how far from the library was Mabel?

Answer: (a) _____[2]

(b) _____[3]

21

48.   Emily had a rod. She marked it in three different ways.

First, she marked the rod into ten equal parts.

Without erasing the first set of markings, she then marked the rod into 12 equal parts.

Finally, she added another set of markings by marking the rod into 15 equal parts.

If she cut the rod according to the markings she had made, how many parts would she get?

Answer: _____ [5]

· End of Paper

ANSWER SHEET

PEI HWA PRIMARY SCHOOL - PRIMARY 6 MATHEMTICS 2007
SEMESTRAL ASSESSMENT (1)

1. 4
2. 1
3. 3
4. 4
5. 1
6. 1
7. 1
8. 4
9. 2
10. 2
11. 1
12. 3
13. 2
14. 2
15. 3
16. 0.005
17. 25.5
18. $800
19. 30
20. 42 red pens
21. 1225
22. 3 km/h
23. 105km/h
24. 10Πcm
25. 1
26. 6m

27) 20%-->12
    100%-->12x5=60
    60÷2=30boys

28) 100%+110%=210%
    210%-->231
    110%-->231/210x110/1=121 tea bags

29) 150%

30) Izzy→100%
    Henna→120%
    Cloria→120/100x120=144
    %-->144-100=44%

31) 1h 50min

32) 28/1x3/4=21km
    21+9=30
    ¾+3/4=6/4
    =12/4
    =1 ½ h
    12/1x3/4=9km
    30/1÷6/4=30/1x4/6
    20km/h

33) 0809

34) 61cm

35) 12

36) k/100x5/1=k/20
   30-k/20=30-k/20
   He had $(30-k/20)

37) 4u+5u=9u
   1u→189÷9=21
   4u→21x4=84
   5u→84+21=105
   2u+5u=7u
   1u→189÷7=27
   2u→27x2=54
   5u→27x5=135
   84-54=30
   135-105=30
   Fern gave Wilbur 30 sweets.

38) a)500   b)50

39) 9.15pm→8.15am→8.45am
   11 ½ fight was 8 ½ h

40) Total→40x4=100
   3 others must be as young as→25x3=75
   160-75=85
   The older person is 85 years old.

41) The length is 100cm

42) Total surface area
   →5x5x6=150cm3
   Additional area
   →1x1x4=4cm3
   Additional area
   →4x6=24
   Surface area of the remaining fig
   →150+24=174cm3

43) D	135km	120km		D	240
S	90km/h	80km/h		S	96km/h
7	1 ½ h	1 ½ h		T	2 ½

$80/1 \times 2/3 = 120$

$120 + 135 = 255$

$255 - 15 = 240$

$240 \div 96 = 2 \quad 48/96$

$= 2 ½$

$1 ½ + 1 ½ = 3h$

$3h - 2 ½ h = ½ h$

Sabrina to ok ½ h less than Rowena.

44) 1st day→10%

2nd day→12.5%

3rd day→12.5%+9

50-10%-12.5%-12.5%

=15%-->9

5%-->3

100%-->3x20=60

She baked 60 cookies in all.

45) S | 100% |
T | 68% | 32% | } 64+10+10=84%

a) 168%-->84

68%-->84/168x68=34

Tanya had $34 in the end.

b) Stephanie at first →0.5x100-10=40

Tanya at first →34-10=24

Tanya= Stephanie=24:40

=3:5

The ratio is 3:5

46) It is 72.9%

47) a) $150 \div 75 = 2$

50m/min x 2 = 100

Mabel was 100m ahead of her.

b) Away → 900 - 700 = 200m

She is 200m away.

---end---

PEI HWA PRESBYTERIAN PRIMARY SCHOOL
2007 PRELIMINARY EXAMINATION
MATHEMATICS
PRIMARY 6

Name   : _____ (   )

Class   : _____ 6

Date   : _____

Parent's Signature : _____

BOOKLET A

Total time for Booklet A and B: 2 hour 15 minutes

Booklet	Type	Max. Marks	Marks Obtained
A	Multiple-Choice	20	
B	Short-answer	30	
	Structured / Long-answer	50	
	Grand Total	100	

INSTRUCTIONS TO CANDIDATES

• Do not turn over this page until you are told to do so.

• Follow all instructions carefully.

• Answer all questions.

• Shade your answers in the Optical Answer Sheet (OAS) provided.

• Check your work carefully.

Pei Hwa Presbyterian Primary School
2007 Preliminary Examination
Mathematics
Primary 6

Booklet A
Section A : (20 marks)
Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and shade the correct oval accordingly on the Optical Answer Sheet provided.

1.   30 ones, 50 tenths and 60 hundredths is _____.

    (1)   30.506
    (2)   30.56
    (3)   35.06
    (4)   35.6

                                                                (   )

2.   What is the <u>difference</u> between 3.4 min and 2 min 4 s?

    (1)   1 min
    (2)   1 min 20 s
    (3)   1 min 36 s
    (4)   100 s

                                                                (   )

3.   Mrs Lim bought a watch at a discount of 30%.
        She paid $210 for it. What was the original price of the watch?

    (1) $273
    (2) $300
    (3) $390
    (4) $700

                                                                (   )

1

4.   Miss Tan's stride is 47cm. In 6 seconds, she takes 5 strides.
At this rate, how far can she walk in 1 minute?

47cm

    (1)   235 cm

    (2)   282 cm

    (3)   1410 cm

    (4)   2350 cm

                 (   )

5.   What is the value of $32 - (7 + 9) \div 4 \times 2$?

    (1)   8

    (2)   2

    (3)   24

    (4)   30

                 (   )

6.   The figure shows 2 circles.
Find the perimeter of the shaded part in terms of π.

10 cm

8cm

    (1) 36π cm

    (2) 18π cm

    (3) 10π cm
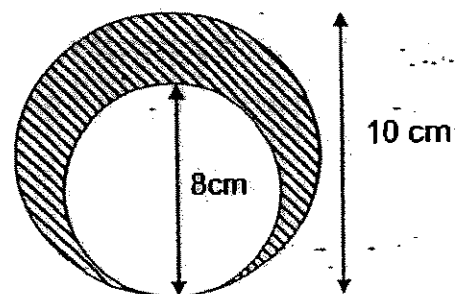
    (4) 2π cm   (   )

7.   Mr Lim took 30 min to jog 1500 m.
     What was his average speed in km/h?

     (1)   0.75 km/h
     (2)   5 km/h
     (3)   3 km/h
     (4)   50 km/h

                                                          (   )

8.   Jean's pocket money was $\frac{4}{7}$ of her sister's.

     If she gave $\frac{1}{2}$ of her money to her sister, what fraction of Jean's pocket money

     was her sister's?

     (1) $\frac{1}{14}$

     (2) $\frac{2}{9}$

     (3) $\frac{2}{7}$

     (4) $\frac{9}{2}$

                                                          (   )

9.   Lynn was born on 1 December 1998.
     On which day will she be 9 years 11 months old?

     (1)   1 October 2007
     (2)   1 November 2007
     (3)   1 October 2008
     (4)   1 November 2008

                                                          (   )

3

10. Matthew made the figure shown below using cubes of sides 3 cm.
He then painted it red. What was the total painted surface area?

3 cm
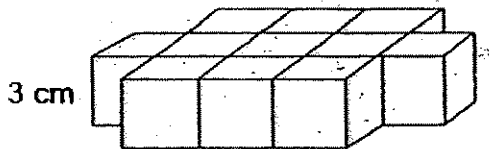
(1) 243 cm^2

(2) 297 cm^2

(3) 333 cm^2

(4) 342 cm^2

(   )

11. The figure below is a square made up of 6 regions, A, B, C, D, E and F.

Regions B and C are each $\frac{1}{16}$ of the figure while regions D and E are

$\frac{1}{4}$ of the figure.
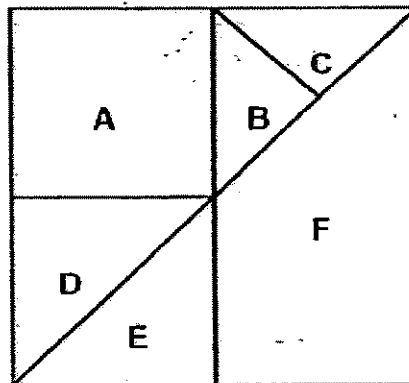
Which one of the following will **not** form $\frac{3}{8}$ of the figure?

(1) A and E

(2) A, B and C

(3) C, D and E

(4) B, C, D and E

(   )

4

12.   The pie chart below shows the pupils' preference for certain CCAs in a secondary school. POS and QOT are the diameters of the circle.

90 more pupils prefer Badminton to Basketball.

What is the number of pupils who prefer the CCA Band?
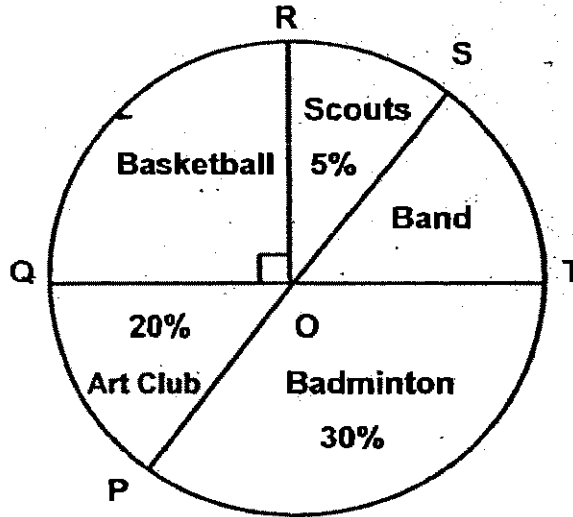
(1)   60

(2)   72

(3)   120

(4)   360

(   )

13.   In the diagram, not drawn to scale, DHE, HJG, DJF and EFG are all straight lines. What is the value of ∠d + ∠g?

(1)   55°

(2)   70°

(3)   125°

(4)   180°

(   )

5
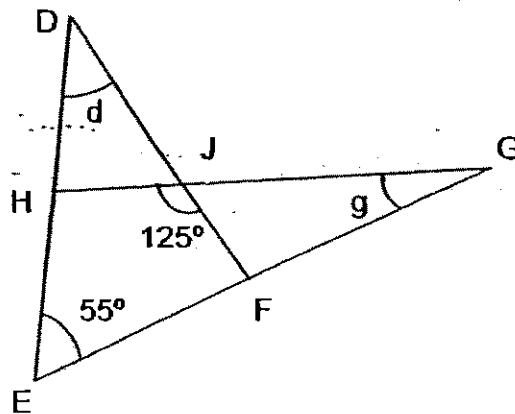
14. The ratio of Amanda's mass to Ben's mass is 2 : 3.
    The ratio of Ben's mass to Calvin's mass is 5 : 3.
    Ben weighs 45 kg. What is the average mass of the three pupils?

    (1)   30 kg
    (2)   34 kg
    (3)   35 kg
    (4)   39 kg

                                                        (   )

15. In a school, 75% of the pupils are girls.
    40% of the girls wear spectacles.
    Among those girls who wear spectacles, 20% of them walk home from school.
    How many per cent of the pupils are girls who wear spectacles and walk home
    from school?

    (1)   6%
    (2)   8%
    (3)   15%
    (4)   60%

                                                        (   )

6

PEI HWA PRESBYTERIAN PRIMARY SCHOOL
2007 PRELIMINARY EXAMINATION
MATHEMATICS
PRIMARY_6

Name : _____( )

Class : _____6

Date : _____

BOOKLET B

Question No.	Max. Marks	Marks Obtained
16 – 25	10	
26 – 35	20	
36 – 48	50	
Total	80	

INSTRUCTIONS TO CANDIDATES

- Do not turn over this page until you are told to do so.
- Follow all instructions carefully and show all workings carefully.
- Answer all questions and show all workings clearly.
- Write your answers in this booklet.
- Check your work carefully.

Booklet B
Section B: (30 marks)
Questions 16 to 25 carry 1 mark each. Write your answers in the space provided for each question. For questions which require units, give your answers in the units stated.   (10 marks)

16.   In $\dfrac{7}{8} = \dfrac{7+14}{8+\boxed{}}$, what is the missing number in the box?

Answer: _____

17.   A test began at 11.30 am and lasted for $1\dfrac{5}{6}$ hours.

At what time would the invigilator say, "There are fifteen minutes left."?

(Leave your answer in 12-hour clock.)

Answer: _____

18.   There were 6 women and 9 men in a party.

An hour later, another 4 women and 6 men joined them.

In the end, what percentage of the total number of people is the number of women?

Answer: _____%

7

19.   Complete the figure below so that the dotted line AB is the line of symmetry.
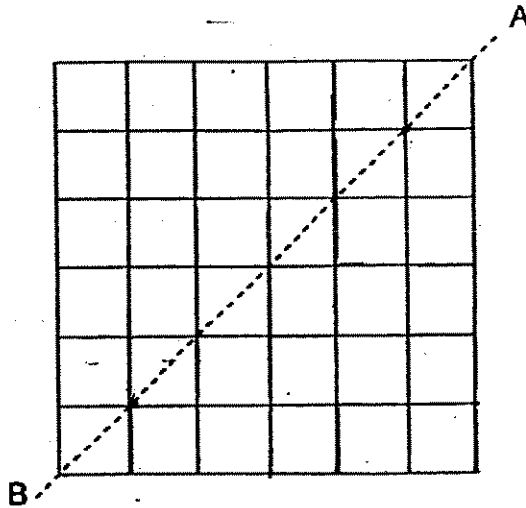
20.   A fiction book contains n pages. It has 23 pages more than a reference book.
       What is the total number of pages in both books?
       (Express your answer in terms of n.)

Answer:_____

21. $306 \times 99 = 306 \times B - B - B - B - 6$
       Find the value of B.

Answer:_____

22.   The sum of 3 consecutive odd numbers is 387.
       What is the smallest odd number?

Answer:_____

8

23.   What is the length of the metal rod in the figure?
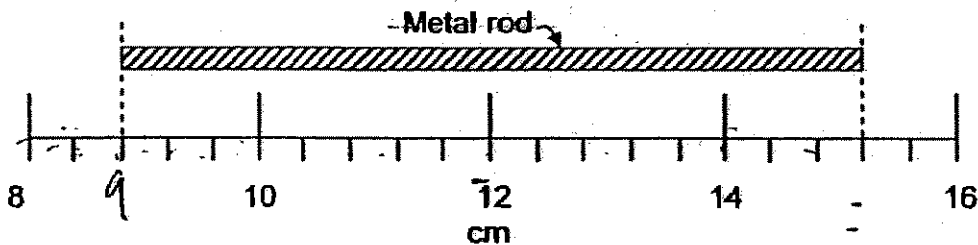
Answer: _____ cm

24.   The figure below is not drawn to scale and it is made up of a square and a quadrant. Find its area. (Take π = 3.14)

20 cm
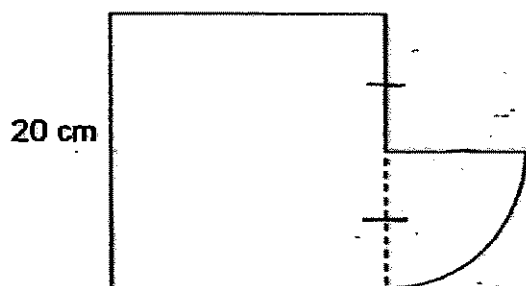
Answer: _____ cm²

25.   If the same kind of solid has the same mass, what is the mass of a ⊚ ?
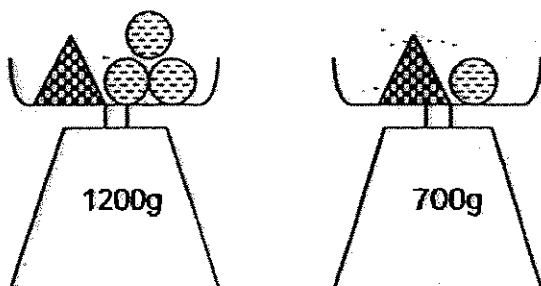
1200g   700g

Answer: _____ kg

9

Questions 26 to 35 carry 2 marks each. Show your working clearly in the space below each question and write your answer in the space provided for each question. For questions which require units, give your answers in the units stated.   **(20 marks)**

26.   The figures below are not drawn to scale. The side of Cube X is 2 cm.

The side of Cube Y is 4 times the side of Cube X.

Find the ratio of the volume of Cube X to the volume of Cube Y.

(Give your answer in its simplest form.)

Cube X   Cube Y
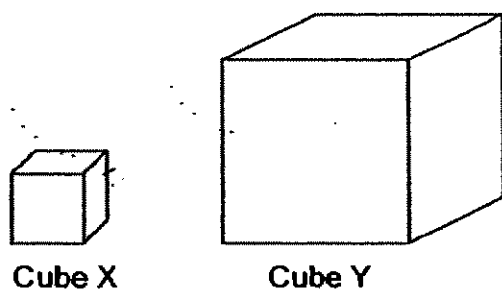
Answer: _____

27.   The rates of charges for taxi fare are as follows:

Distance	Cost
First 1km or less	$2.40
Every additional 200m or part thereof	$0.10

How much will a passenger have to pay for a journey of 7.35 km?

Answer: $_____

10

The pie chart below shows the sales in a stationery shop on a certain day.
Use the pie chart to answer questions 28 and 29.
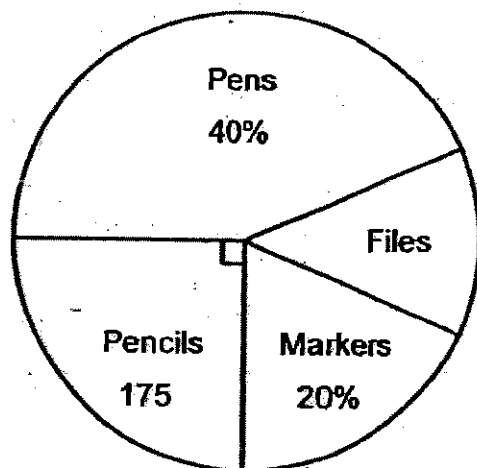
28.   How many files were sold?

Answer: _____

29.   How many per cent fewer files than pencils were sold?

Answer: _____ %

30.   A lift can travel from the first level to the 25th level in 36 seconds. The distance between one level to the next level is 3 m. What is the speed of the lift?

Answer: _____ m/s

11
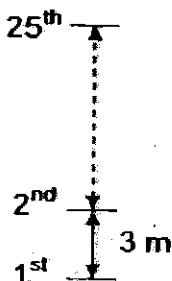
31.   The number of Hanson's marbles is $\frac{5}{7}$ of the number of Jacky's marbles.
Hanson lost 21 marbles. He then found that he had half as many marbles as
Jacky. Find the number of marbles Jacky had.

Answer:_____

32.   A tank was $\frac{1}{5}$ full of water. When another 438 ml of water was added into the
tank, it became half full. How much water was in the tank at first?

Answer:_____ ml

33.   In the diagram below, how many angles inside it are less than 90°?

Answer:_____

12
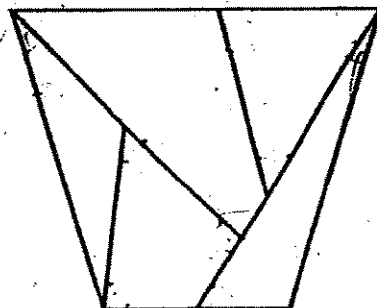
34. In the figure below, not drawn to scale, ABCD is a rhombus.

AB = BC = CD = DA, ∠ BAD = 70°, ∠BEF = 20°, EBD and EFG are straight

lines. Find the value of ∠ g.
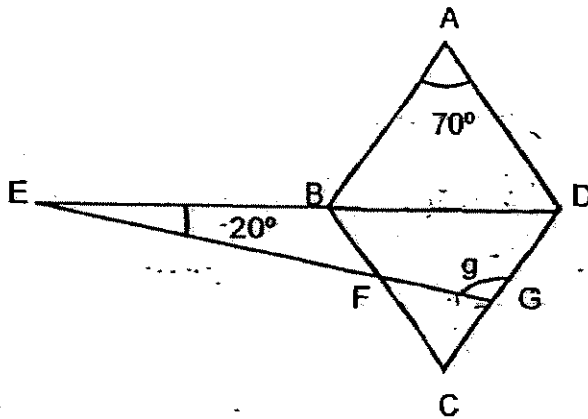
Answer: _____°

35. A ship carries enough water for 20 persons to consume in 50 days.

After 30 days, 4 persons left the ship for an island. If each person drinks the

same amount of water each day, how many days can the remaining water last?

Answer: _____

13

Pei Hwa Presbyterian Primary School
2007 Preliminary Examination
Mathematics
Primary 6

Name: _____ (   )   Total: _____ / 50

Class: _____   Date: _____

Booklet B
Section C: (50 marks)
For questions 36 to 48, show your working clearly in the space provided for each question and write your answer in the space provided for each question.
The number of marks available is shown in the brackets [   ] at the end of each question or part-question.   **(50 marks)**

36. In a shop, different customers were given different discounts.

    Mr Tan paid $280 for a hand-phone at a discount of 20%.

    However, Mr Chen paid $301 for a similar hand-phone.

    What was the percentage discount given to Mr Chen?

Answer: _____ [3]

14

37. At the Great Singapore Sales, Mrs Teo paid $118 for two blouses and one skirt.
    Mrs Leong paid $128 for one similar blouse and two similar skirts.
    What is the cost of one blouse?

Answer: _____ [3]

38. Extend the tessellation by drawing 4 more unit shapes in the space provided. [3]

15
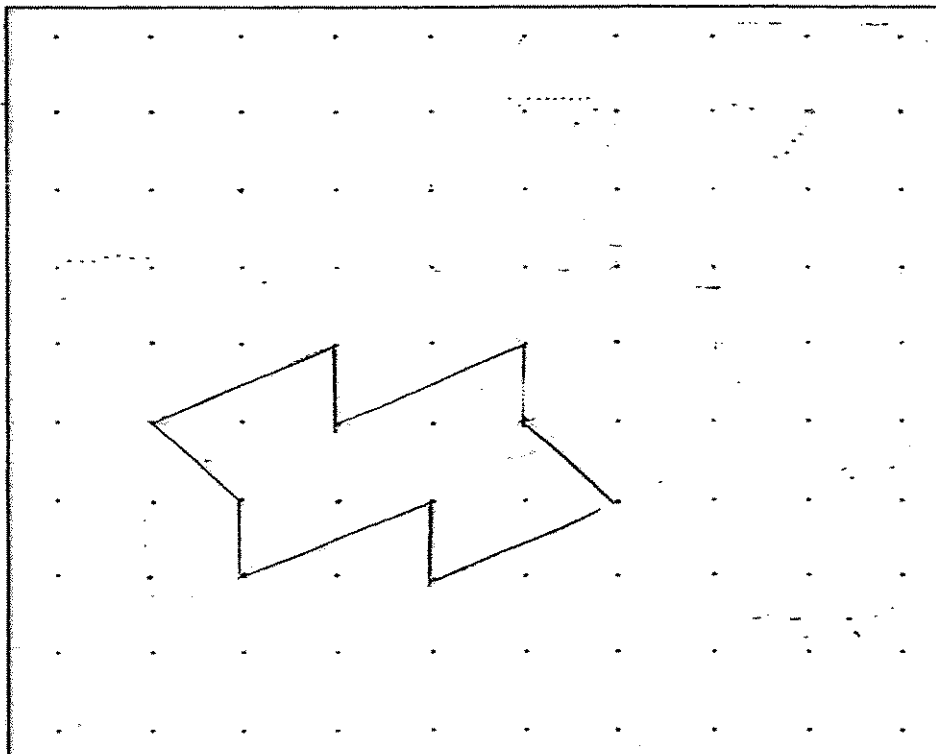
39.   Ben travelled at an average speed of 70 km/h from Town A to B.

James started off $\frac{1}{2}$ h later and travelled at an average speed of 80 km/h from

Town A to B. At the end, both of them reached Town B at the same time.
Find the distance between Town A and Town B.

Answer: _____ [3]

40.   Wendy had a piece of wire 80 cm long. She bent the wire to make the shape shown below. P, Q and R are squares. If squares Q and R are identical, find the area of R.

Answer: _____ [3]

16
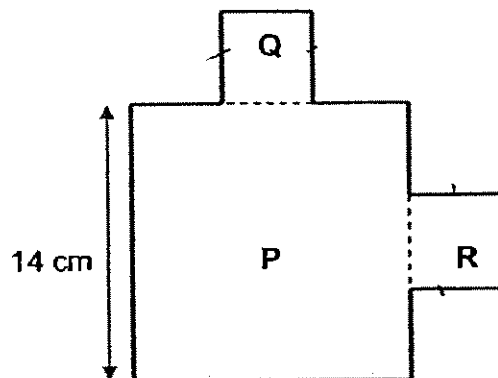
41. The distance between Town A and Town B was *y* km.

Kim and Gillian travelled from Town A to Town B at a constant speed.

They both started their journey at the same time.

When Gillian covered half the journey, Kim covered 16 km from Town A.

When Gillian completed the whole journey, how far from Town B was Kim?

Answer: _____ [3]

42. Study the following number patterns:

8 ☼ 2 = 8 + 9 = 17

6 ☼ 3 = 6 + 7 + 8 = 21

3 ☼ 4 = 3 + 4 + 5 + 6 = 18

(a) Find the value of 10 ☼ 4.

Answer: _____ [2]

(b) ☐ ☼ 3 = 66. Find the missing number in the box.

Answer: _____ [2]

17

43. In a 10 km race, the line graph below shows the information of Cyclists A and B.
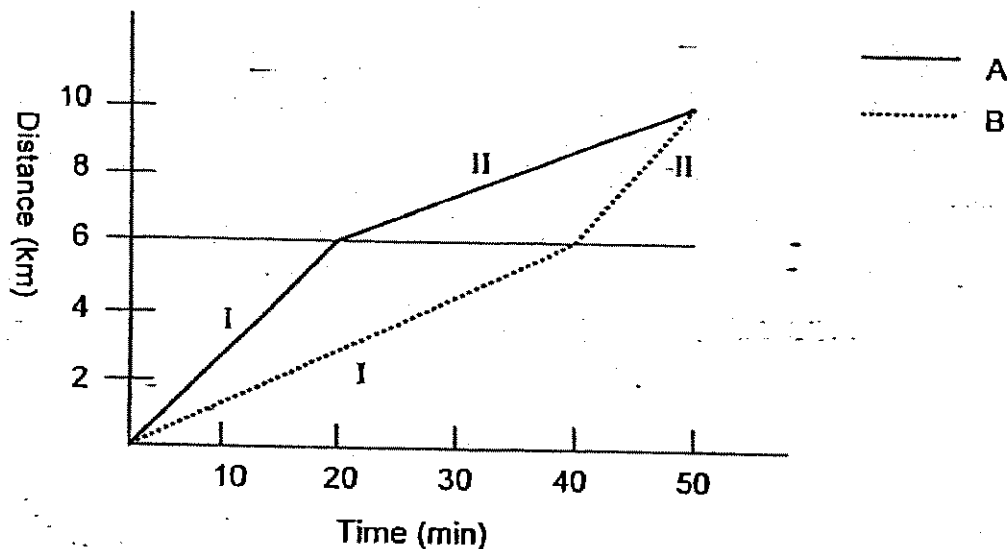
(a) Refer to the graph above and fill in the following blanks using the words "slower" or "faster" to describe the two cyclists.

Cyclist A moved _____ in part I than in part II of the journey. [1]

Cyclist B moved _____ in part I than in part II of the journey. [1]

(b) Find the speed difference between part I and part II of Cyclist B's journey. (Leave your answer in m/min.)

Answer: _____ [2]

18

44.   (a)   In the space below, draw a triangle DEF in which DE = 4 cm,

             DF = 10 cm and $\angle$ FDE = 125°. The line DE has been drawn for you. [2]

  (b)   Measure $\angle$ DEF.

  (c)   Measure the height of the triangle if DE is the base of the triangle.

D   E

Answer: (b) _____ [1]

           (c) _____ [1]

19

45.   Tank X is in the shape of a cube of side 30 cm. It is filled to its brim with water. The water is then poured into Tank Y which has a rectangular base, 40 cm by 30 cm. When Tank Y is $\frac{2}{3}$ filled, there are still 15 litres of water left in Tank X.

(a)   Find the height of the Tank Y.

(b)   When 5.7 litres of water in Tank Y is poured back into Tank X, what is the height of the water left in Tank Y?

30 cm

Tank X

(b)

(a)

40 cm
Tank Y

30cm

Answer: (a) _____[3]

(b) _____[2]

20
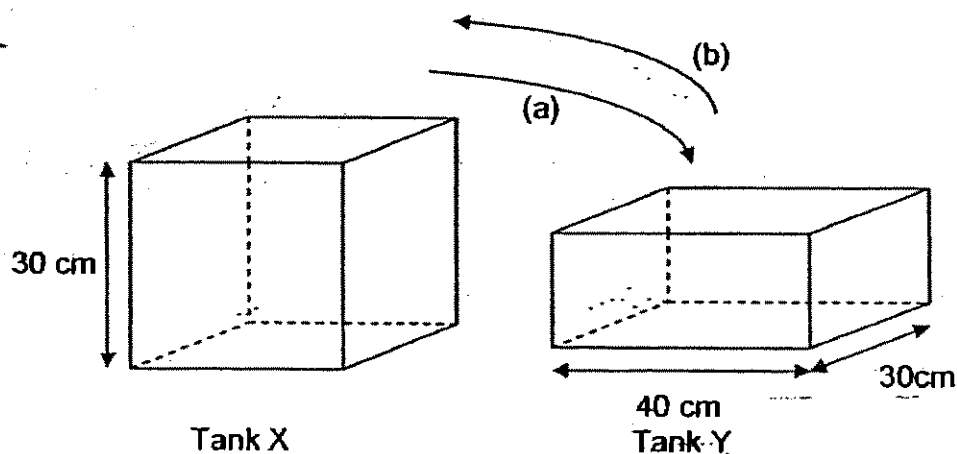
46. Tom and David, started travelling from Town A at the same time. Collin, who was travelling in the same direction, was some distance ahead when Tom and David started on their journey. After travelling for 12 minutes at an average speed of 70 km/h, Tom overtook Collin. 3 minutes later, David, who was travelling at an average speed of 58 km/h, overtook Collin too.
What was the average speed of Collin in km/h?

Answer_____[5]

21

47.   May has some stickers. She gives $\frac{1}{4}$ of her stickers to Lina.

As a result, Lina has thrice as many stickers as before. Then, Lina gives $\frac{1}{2}$ of her stickers to Pat. Now, Pat has $1\frac{1}{2}$ times as many stickers as before.

If Lina still has 129 stickers left,

(a)   how many stickers does Lina have at first?

(b)   how many stickers does May have at first?

(c)   what fraction of Pat's stickers is Lina' stickers at first?

Answer: (a) _____[2]

(b) _____[2]

(c) _____[1]

22

48.   Mrs Heng sold some comic books from Monday to Sunday.

On Saturday, she sold 20% more than the average number of comic books sold in a week. On Sunday, she sold 30% more than the average number of comic books sold in a week. She sold 18 more comic books on Sunday than on Saturday.

(a)   How many comic books were sold from Monday to Friday?

(b)   Each comic book was sold at $3.60. How much money was collected from Monday to Friday?

Answer: (a)_____[4]

(b)_____[1]

End of Paper
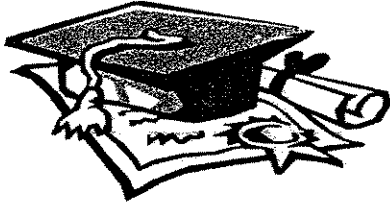
23

ANSWER SHEET

PEI HWA PRIMARY SCHOOL - PRIMARY 6 MATHEMATICS 2007
PRELIMINARY EXAMINATION

1. 4	20) 2n-23	28) 105
2. 2		
3. 2	21) 100	29) 40%
4. 4		
5. 3	22) 127	30) 2m/s
6. 2		
7. 3	23) $6_{2/5}$	31) 49
8. 4		
9. 4	24) 47/8 .5	32) 292ml
10. 4		
11. 3	25) 0.25kg	33) 13
12. 4		
13. 2	26) 1:64	34) 105°
14. 2		
15. 1	27) $5.60	35) 25 days
16. 16		
17. 1.05pm	A	36) 14%
18. 40%		
19.		37) $36

38)

B
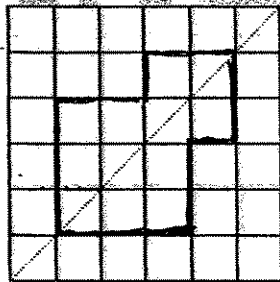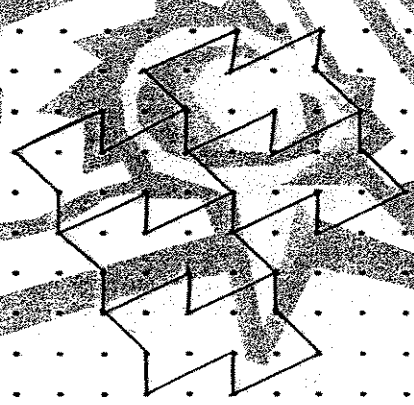
39) 280km

40) 14x4=56
    80-56=24
    24÷4=6
    6x6=36
    The area is 36cm2

41) (y-32)km

42) a) 46
    b) 21

43) a) faster, slower
    b) 250m/min

44) a)
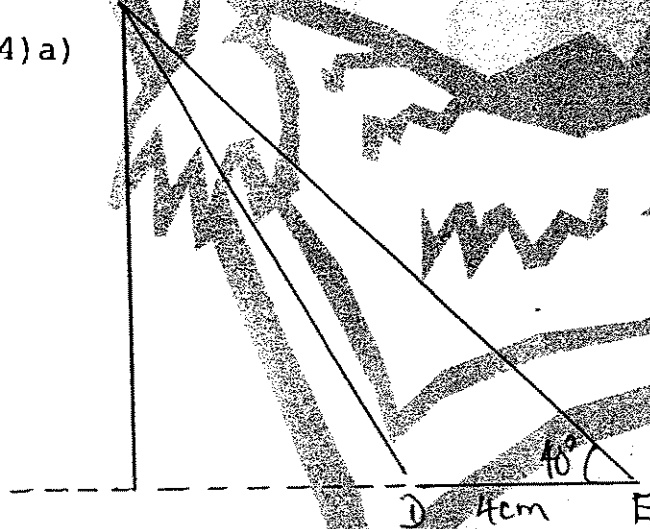
b) ∠DEF is 40°
c) 8.3cm

45) a) 15cm
    b) 5.25cm

46) 10km/h

47) a) 86   48) a) 810
    b) 688   b) $2916
    c) 1/3

7·35 km

6·35 km = 6350 m

6350 m ÷ 200 m = 31.75

32 × $0.10 = $3.20

$2.40 + $3.20 = $5.60 //

---

(28) 100% − 40% − 20% − 25% = 15%

25% → 175

15% → $\frac{175}{25} \times \frac{15}{1}$ = 105 files //

---

(29) 175 − 105 = 70

$\frac{70}{175} \times 100\%$ = 40% //

---

(31)
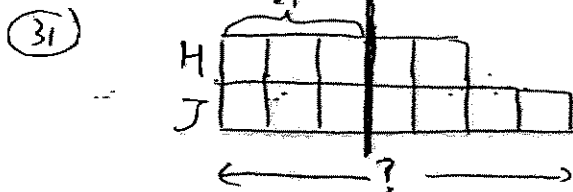
3u = 21

7u = $\frac{21}{3} \times 7$ = 49 marbles //

(書) (33) 13

---

(35) 20 persons → 50 days → 1 water

20 persons → 30 days → $\frac{30}{50} = \frac{3}{5}$ water

left $\frac{2}{5}$ water

20 persons → $\frac{3}{5}$ water → 30 days

20 persons → $\frac{2}{5}$ water → $\frac{30}{3} \times 2$ = 20 days

16 persons → $\frac{2}{5}$ water → $\frac{20}{16} \times 20$ = 25 days //

37)

B	S
B	S

$118 + $128 = $246

$$B + S = \$246 \div 3 = \$82$$
$$2B + 1S = \$118$$
$$B = \$118 - \$82$$
$$= \$36 \;/\!/$$

---

39) Ben — 70 km/h,

$$\tfrac{1}{2}h \rightarrow \tfrac{70}{2} = 35 \, km.$$

Difference in speed $= 80 - 70 = 10 \, km/h.$

$$\frac{35}{10} = 3\tfrac{1}{2}h$$

Distance $= 3\tfrac{1}{2} \times 80 = 280 \, km \;/\!/$

---

41)
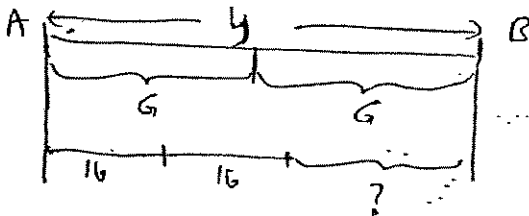
$$y - 16 - 16$$
$$= (y - 32) \, km. \;/\!/$$

---

42) $10 \times 4 = 10 + 11 + 12 + 13$
$$= 46 \;/\!/$$

43b) Part I $= \dfrac{6000}{40} = 150 \, m/min$

Part II $= \dfrac{4000}{10} = 400 \, m/min.$

Speed difference $= 400 - 150$
$$= 250 \, m/min \;/\!/$$

(45) b) $12x - 3 \cdot y \cdot x$

$$H = \frac{6300}{40 \times 30} = 5.25 \, cm.$$

(46)
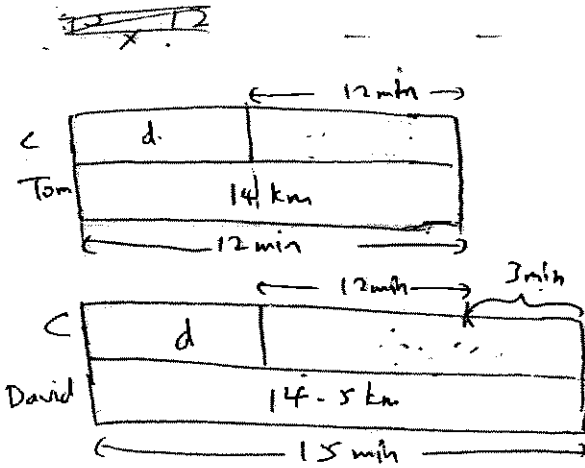
$$70 \times \frac{12}{60} = 14 \, km$$

$$58 \times \frac{15}{60} = 14.5 \, km.$$

$$14.5 - 14 = \frac{1}{2} \, km$$

$$3 \, min \longrightarrow \frac{1}{2} \, km.$$

$$60 \, min \longrightarrow \frac{1}{2} \times \frac{60}{3} = 10 \, km.$$

Speed of Collin $= 10 \, km/h.$

(47) L

129   to Pat
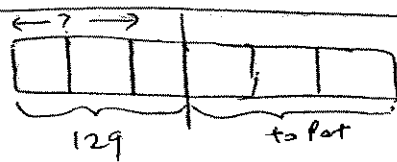
a) $3u = 129$

$1u = \frac{129}{3} = 43$

$2u = 2 \times 43 = 86$

b) $4u = 4 \times 43 = 172$

$172 \times 4 = 688$

c)
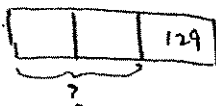
$129 \times 2 = 258$

$$\frac{86}{258} = \frac{43}{129} = \frac{1}{3}$$

(48) a) $30\% - 20\% = 10\%$

$10\% \longrightarrow 18$

average = $100\% \longrightarrow 180$

Total $= 180 \times 7 = 1260$

Sat $\longrightarrow \frac{120}{100} \times 180 = 216$

Sunday $\longrightarrow \frac{130}{100} \times 180 = 234$

Mon to Friday $\longrightarrow 1260 - 216 - 234$
$= 810 \, books$

b) $810 \times \$3.60 = \$2916$

RAFFLES GIRLS' PRIMARY SCHOOL

SEMESTRAL ASSESSMENT 1
2007

Your Score Out of **100** marks		
	Class	Level
Highest score		
Average score		
Parent's Signature		

Name :_____ (   ) Class: P6___

9 May 2007 MATHEMATICS   Att: 2 h 15 min

SECTION A (20 marks)

Question 1 to 10 carry 1 mark each. Question 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade your answer (1, 2, 3 or 4) on the OAS provided.

1. In 216 857, what does the digit 1 stand for?

    (1)   10 ones

    (2)   10 tens

    (3)   10 hundreds

    (4)   10 thousands   (   )

2. If $\frac{2}{3}$ of a number is 18, what is 4 times the number?

    (1)   36

    (2)   72

    (3)   108

    (4)   144   (   )

3. Jack mixed half a litre of orange syrup with 3 litres of water to make an orange drink. How many millilitres of orange drink did he make?

    (1)   3 000 mℓ

    (2)   3 200 mℓ

    (3)   3 500 mℓ

    (4)   4 000 mℓ (   )

4. Find the value of $\dfrac{4n-6}{6}$ when $n = 2$.

    (1) $\dfrac{1}{6}$

    (2) $\dfrac{1}{3}$

    (3)   7

    (4)   8   (   )

5. The figure shows the net of a cuboid. The cuboid has a square base. Find the volume of the cuboid.

6 cm

16 cm
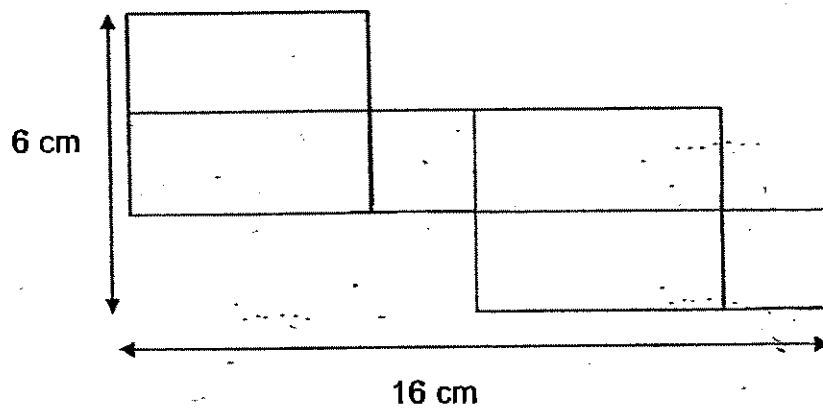
    (1)   12 cm^3

    (2)   24 cm^3

    (3)   52 cm^3

    (4)   72 cm^3 (   )

6. $1\frac{1}{3} - \frac{3}{15} = 1\boxed{}\frac{2}{15}$

What is the arithmetic operation in the box?

(1) −

(2) +

(3) ×

(4) ÷   (   )

7. Express $7\frac{3}{5}$ as a decimal.

(1) 7.03

(2) 7.06

(3) 7.30

(4) 7.60   (   )

8. Mrs Tan bought y pens at 70 cents each. She paid the shopkeeper $5. How much change did she receive?

(1) $ (70y − 5)

(2) $ (0.70y − 5)

(3) $ (5 − 0.70y)

(4) $ (5 − 70y)   (   )

9. If the clock face is showing the time 1.45 p.m., what would be the time when the minute hand makes a 270° turn?

(1) 2.00 p.m.

(2) 2.15 p.m.

(3) 2.30 p.m.

(4) 3.00 p.m.   (   )

10. There are 75 girls and 60 boys in a camp. How many percent more girls than boys are there?

   (1)   20 %

   (2)   25 %

   (3)   44.5 %

   (4)   55.5 %   (   )

11. Given that x is $\dfrac{3}{5}$ of y and y is $\dfrac{5}{2}$ of z. What fraction of x is z?

   (1) $\dfrac{2}{3}$

   (2) $\dfrac{2}{5}$

   (3) $\dfrac{3}{2}$

   (4) $\dfrac{5}{3}$ (   )

12. Which number is a common factor of 30 and 45?

   (1)   6

   (2)   15

   (3)   30

   (4)   90   (   )

13. 30 + 10 hundredths + 0.016 = _____.

   (1)   30.026

   (2)   30.116

   (3)   31.016

   (4)   40.016   (   )

14. $\frac{2}{3}$ of X is equal to $\frac{1}{5}$ of Y. Find the value of 80% of Y if X is 930.

    (1)   744

    (2)   1 860

    (3)   2 480

    (4)   3 100   (   )

15. A grand prix racer completes 144 laps on a $\frac{3}{4}$ km track in $\frac{3}{4}$ hour. What is his average driving speed?

    (1)   81 km/h

    (2)   108 km/h

    (3)   144 km/h

    (4)   192 km/h   (   )

SECTION B (30 marks)

Question 16 to 25 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. All diagrams are not drawn to scale. Answers in fractions or ratio must be expressed in the simplest form.

16. Study the number pattern below and fill in the missing numbers.

    52 297,   52 212,   _____,   52 042,   51 957

    Ans: _____

17. Find the value of $10 + 20 \div (8 - 3 \times 2)$.

    Ans: _____

18. The diagram below shows two squares with lengths 12 cm and 8 cm respectively. If the shaded area is 36 cm², what fraction of the figure is unshaded?
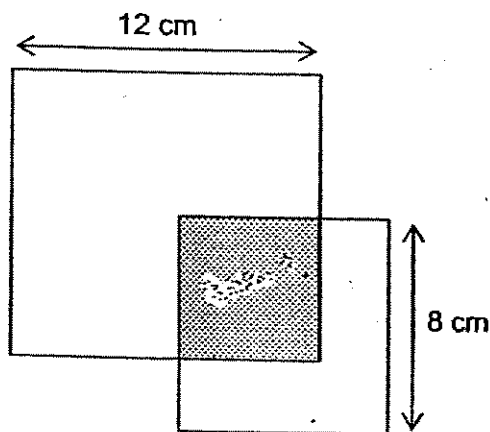
    Ans: _____

19. Susan spent $\frac{1}{5}$ of her money on a bag and $\frac{1}{2}$ of the remainder on a shirt. What fraction of her money did she spend on the two items?

Ans: _____

20. Express 0.024 as a fraction in its simplest form.

Ans:_____

21. Express 10.007 cm in metres and centimetres.

Ans: _____ m _____ cm

22. $3\frac{3}{4} = 2\frac{1}{4} + \boxed{} \times \frac{1}{4}$

What is the missing number in the box?

Ans: _____

23. A train travels 4y km in 2 hours. How far will it travel in 30 min?

Ans:_____ km

24. An ant can crawl 36 metres in 1 hour. What is its speed in cm/s?

Ans: _____ cm/s

25. The clock below shows the time Ann started driving to Malacca. She reached
     Malacca at 2.15 p.m. How long was her journey? Express your answer in hours
     and minutes.
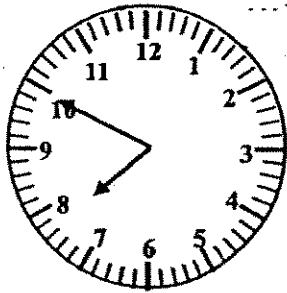
Ans: _____ h _____ min

Name :_____ (   )   Class: P6_____

Question 26 to 35 carry 2 marks each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. All diagrams are not drawn to scale. Answers in fractions or ratio must be expressed in the simplest form. Marks will be awarded for relevant working.

---

26. Two years ago, Jane's starting pay was $2 000 per month. Last year, there was a 10% reduction in her pay. In March this year, her pay was raised by 10%. She received an additional $50 per month. What was her salary in April this year?

Ans: $ _____

27. Calculate the product of 3 045 and 60. Round off your answer to the nearest hundred thousands.

Ans: _____

28. The figure below shows the fence around a garden. A, B and O are the centres of 3 identical circles. OC is 7 m. Find the perimeter of the fence. (Take $\pi = \dfrac{22}{7}$)
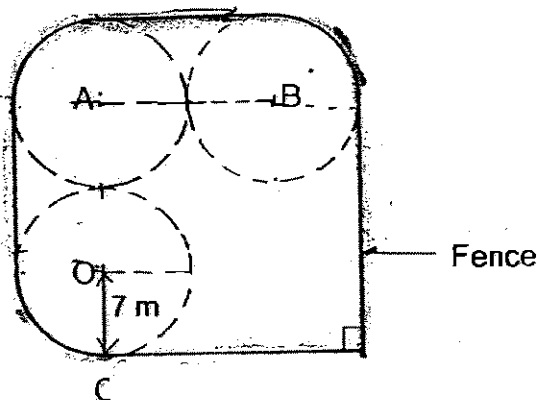
Ans: _____ m

29. Find the value of A.

```
      A . 1 4 A
  x           A
  _____
  2 A . 7 2 A
  _____
```

Ans: _____

30. In the diagram shown below, ABCE is a parallelogram and ACDE is a rectangle. Find ∠q.
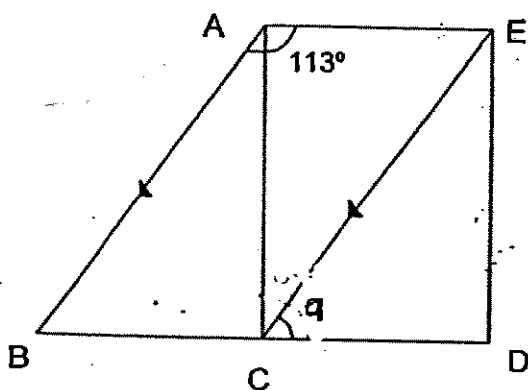
Ans: _____ °

31.
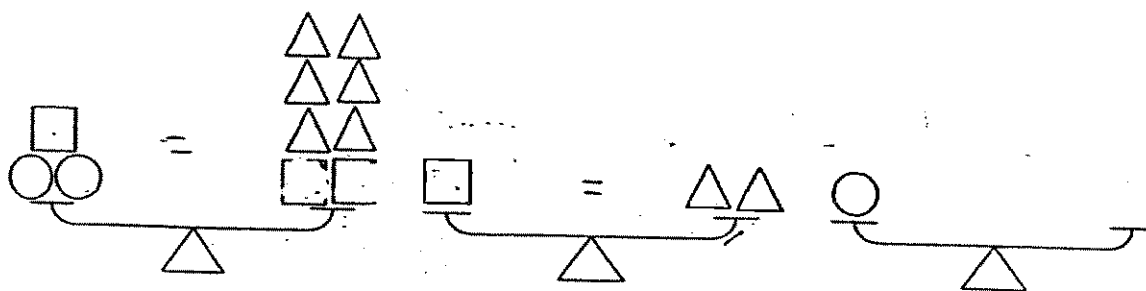
The weight of ◯ is equal to _____ △

Ans: _____

32. Simplify the following equation.

$$14p \div 2 + 13 - 10 - 7 \times p$$

Ans: _____

33. Jason cycled $1\frac{1}{4}$ hours at an average speed of 16km/h and walked for 30 min at an average speed of 8km/h. Find the total distance travelled.

Ans: _____ km

$$\triangle + \triangle = \triangle : 8$$

Find the value of $\triangle$

Ans: _____

all pupils like to play *either* basketball *or tennis. or both.*

35. Of a group of 200 pupils, 160 pupils like to play basketball and 140 pupils like to play tennis. What percentage of pupils likes to play basketball only?

Ans: _____ %

Name :_____ (   )   Class: P6_____

SECTION C (50 marks)

For question 36 to 48, show your working clearly in the space provided below each question and write your answer with suitable units in the spaces provided. All diagrams are not drawn to scale. Answers in fractions or ratio must be expressed in the simplest form. Marks will be awarded for relevant working. The number of marks available is shown in brackets [ ] at the end of each question or part-question.

36. A box contains red, yellow and green marbles. Half of the marbles are red and $\frac{1}{8}$ of the remaining marbles are yellow, while the rest of the marbles are green.

If there are 210 more green marbles than yellow marbles, how many marbles are there altogether in the box?

Ans:_____[3]

37. The ratio of the number of women to the number of men in an engineering firm was 3 : 5. When 5y men left the firm due to retrenchment, the ratio of the number of women to the number of men in that company became 4 : 5. How many people were working in the firm at first?

Ans:_____[3]

38. The patterns below consist of shaded and unshaded rectangles. Study the patterns carefully before answering the following questions.
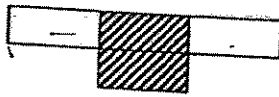
Pattern 1
4 rectangles
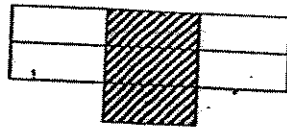
Pattern 2
7 rectangles
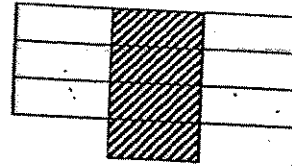
Pattern 3
10 rectangles

(a) What is the total number of rectangles in Pattern 10?

(b) If the pattern has 127 rectangles, how many unshaded rectangles are there?

Ans: (a) _____ [1 m]

(b) _____ [2 m]

39. Shawn bought 8 pens and 5 books for $172. Peter bought 3 pens and 2 books for $66. What was the cost of each book?

Ans: _____ [3]

40. ABC and BCD are two identical equilateral triangles. Given that AB = BE and DC = CF, find the total shaded area.
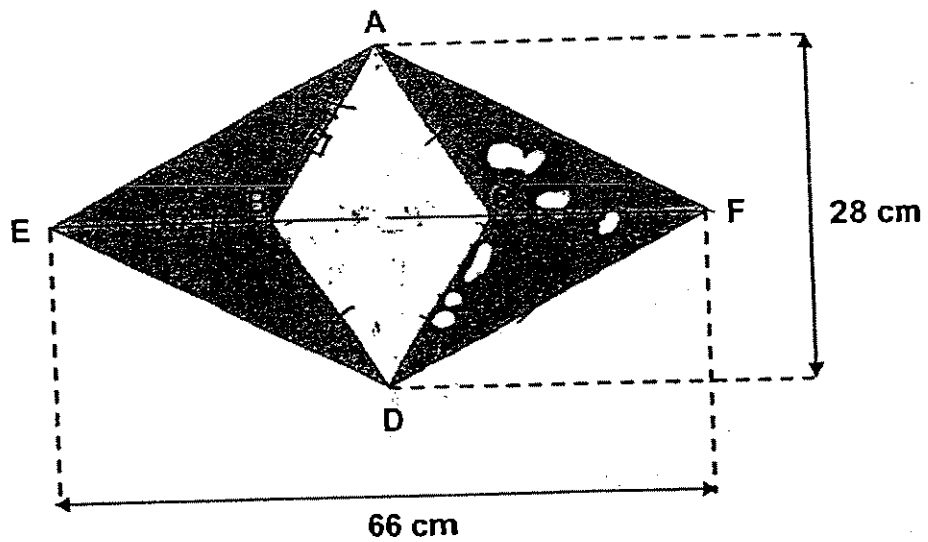
Ans: _____[3]

41. For every $20 Jason saved, his brother saved $35. If his brother had saved $90 more than Jason, find out how much Jason had saved.

Ans:_____ [3]

42. Terry and Alex have some marbles each. When Terry loses $\frac{3}{11}$ of his marbles to Alex, the ratio of Terry's marbles to Alex's marbles becomes 4 : 3.

(a) What is the ratio of Terry's marbles to Alex's marbles at first?

(b) Terry plays another game with Alex and loses more marbles to Alex, and the ratio of Terry's marbles to Alex's marbles becomes 2 : 5. If Alex has 96 more marbles than Terry after the game, how many marbles does Terry lose to Alex in this game?

Ans: (a) _____[1 m]

(b) _____[3 m]

Name : _____(   )   Class: P6_____

43.   Ann and Ben were given some money each. If Ann spent $25 each week
and Ben spent $75 each week, Ann would still have $1 350 left when Ben had
spent all his money. If Ann spent $75 each week and Ben spent $25 each
week, Ann would still have $150 left when Ben had spent all his money.

     (a)   How much money did Ann receive?

     (b)   How much money did Ben receive?

Ans: (a)_____ [3 m]

(b)_____ [1 m]

44. A container weighs 0.466 kg when it is $\frac{2}{3}$ filled with coffee powder. It weighs 0.406 kg when $\frac{1}{4}$ of the coffee powder is removed. What is the weight of the container when it is empty?

Ans: _____ [4]

45. (a)   The figure below is made up 4 identical circles and a square of side
          28π cm. X and Y are centres of the circles. Find the area of triangle ABC.
          Leave your answer in terms of π.
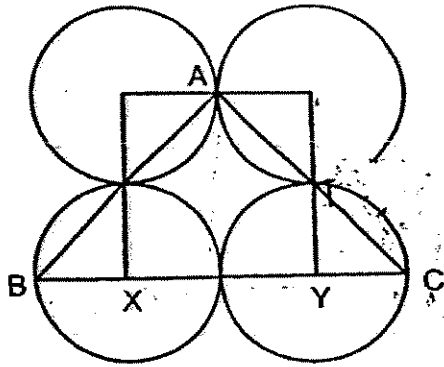
(b)   The perimeter of the triangle ABC is 30 cm. Given AC = 13 cm,
      AB = 12 cm, CX = CY and AX = AZ, find the radius of the circle.
      (Take $\pi = \dfrac{22}{7}$)
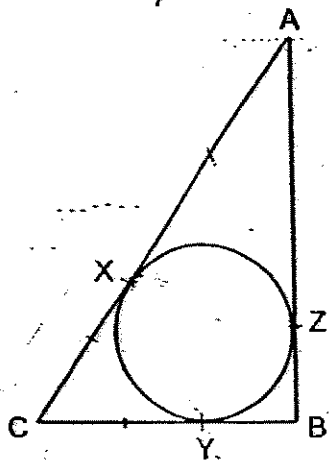
Ans: (a)_____[3 m]

(b) _____[2 m]

46. When a train departed from Somerset Station, 24% of the passengers were children while $\frac{7}{14}$% of the adults were men. There were 25% more girls than boys, and 114 more men than women. At Orchard Station, 9 women and 3 girls left the train. How many female passengers were on board the train when it departed from Orchard Station?

Ans:_____[5]

47. Anna, Ben, Cindy and Dan received a sum of money. Anna received $\frac{3}{8}$ of the total amount of money received by Ben, Cindy and Dan. Ben received $\frac{1}{3}$ of the total amount of money received by Cindy and Dan. Cindy received 3 times as much as Dan. If Anna and Ben received $400,

(a) find the sum of money received by Anna, Ben, Cindy and Dan.

(b) how many per cent more did Cindy receive than Ben?

Ans: (a) _____ [3 m]

(b) _____ [2 m]

48. It takes courier A 10 hours to deliver a parcel from Town X to Town Y. Courier B takes 12 hours to deliver the parcel along the same route. If the speed of courier A is 9 km/h faster than courier B, find the speed of courier A.

Ans: _____[5]

-End of Paper-
Please check your work carefully ☺

Setters: Mdm Tng Jiew Kim
         Mdm Wirda Sukor
         Mrs Wong Ser Huay
         Ms Wai Sook Har
         Ms Yan Ying Ling
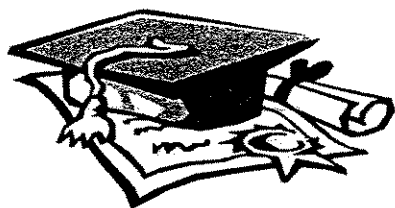
ANSWER SHEET

RAFFLES PRIMARY SCHOOL - PRIMARY 6 MATHEMATICS 2007
SEMESTRAL ASSESSMENT (1)

1. 4	31) 4	
2. 3	32) 3	
3. 3	33) 24	
4. 2	34) 12	
5. 2	35) 30%	
6. 1	36) 7u−1u=6u→210	
7. 4		2u→70
8. 3		16u→560 marbles
9. 3		
10. 2	37) 20u→15u=5u→5y	
11. 1		1u→1y
12. 2		32u→32y
13. 2		
14. 3	38) a) 31	
15. 3	b) 94	
16. 52127		
17. 20	39) $12	
18. 34/43		
19. 3/5	40) 66÷3=22	
20. 3/125	28÷2=14	
21. 100M 7cm	½ x22x14=154	
22. 6	154x4=616cm2	
23. 1y km		
24. 1cm/s	41) 35−20=15	
25. 6h 25min	90÷15=6	
26. $2030	6x20=$120	
27. 200000		
28. 103m	42) a) 11:3	
29. 5	b) 64 marbles	
30. 67°		

43) 9u−1u=8u→1350−150
    =1200
    1u→150
   a) 150+1350=$1500
   b) 150x3=$450

44) 1u→0.466−0.406
    =0.06
    0.06x3=0.18
    0.406−0.18=0.226kg

45) a) 784π cm2
    b) 30cm−13cm−12cm=5cm
       2u→5cm−1cm=4cm
       1u→4cm÷2=2cm

46) 85

47) a) (6+16)−(9+3)=10
       10u→$400
       1u→$400÷10=$40
       22u→22x$40=$880
    b) 4u→4x$40=$160 (B)
       9u→9x$40=$360 (C)
       360−160=200
       200/160x100%=125%

48) 2u→9km
    12u→6x9km
    =54km

---end---

Math Class:

RAFFLES GIRLS' PRIMARY SCHOOL

PRELIMINARY EXAMINATION
2007

Name : _____ (   ) Class: P6 __

Your Score Out of **100** marks		
	Class	Level
Highest score		
Average score		
Parent's Signature		

21 August 2007 MATHEMATICS Att: 2 h 15 min

SECTION A (20 marks)

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade your answer (1, 2, 3 or 4) on the OAS provided.

1. In 264 983, the digit 6 is in the _____ place.

   (1) hundreds
   (2) thousands
   (3) ten thousands
   (4) hundred thousands

2. What is the value of the digit 5 in 123.405?

   (1) 5
   (2) 0.5
   (3) 0.05
   (4) 0.005

3. 7 ℓ 9 mℓ expressed in millilitres is _____.

   (1) 790 mℓ
   (2) 709 mℓ
   (3) 7009 mℓ
   (4) 7090 mℓ

Page 1 of 24

4. A number when rounded off to the nearest thousand is 76 000.
   What is this number?

   (1) 75 495
   (2) 76 480
   (3) 76 505
   (4) 77 001

5. Express $\frac{16}{20}$ as a decimal.

   (1) 0.8
   (2) 0.08
   (3) 0.008
   (4) 0.0008

6. Express 25 seconds as a fraction of 2 minutes.

   (1) $\frac{1}{4}$

   (2) $\frac{1}{8}$

   (3) $\frac{2}{25}$

   (4) $\frac{5}{24}$

7. A movie started at 1.35 p.m. and ended at 3.20 p.m. on the same day.
   How long was the movie?

   (1) 1 h 15 min
   (2) 1 h 45 min
   (3) 2 h 25 min
   (4) 2 h 45 min

8. Which of the following is __not__ equal to $\frac{2}{6}$?

   (1) $\frac{1}{6} \times 2$

   (2) $\frac{1}{3} + \frac{1}{3}$

   (3) $\frac{8}{12} \div 2$

   (4) $\frac{4}{9} - \frac{1}{9}$

9. The figure below shows a quadrant and a rectangle ABCD.
   Point C touches the circumference of the quadrant, and AE = 2y cm.
   The length of BD is _____ cm.
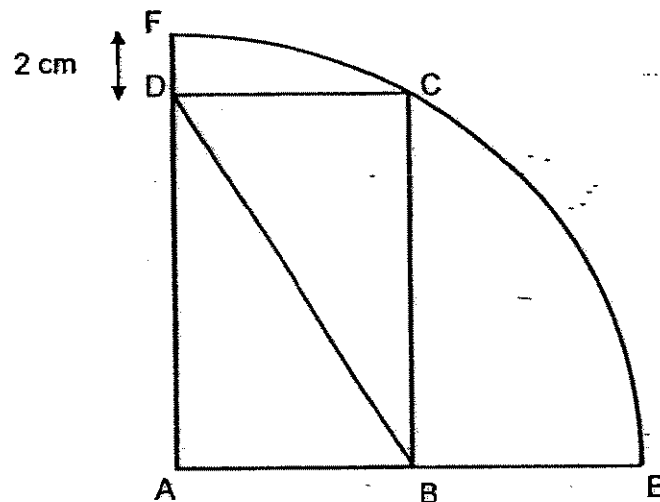
   (1) 2y
   (2) 2y − 2
   (3) 2y + 2
   (4) 4y

10. 2007 x 99 = $\boxed{?}$ x 99 – 99

What is the missing number in the box?

    (1)   2005
    (2)   2006
    (3)   2007
    (4)   2008

11. The pie chart below shows the places of interest visited by 1836 pupils this year. If the same number of pupils visited Sentosa, Night Safari and Bird Park, how many pupils went to Sentosa this year?
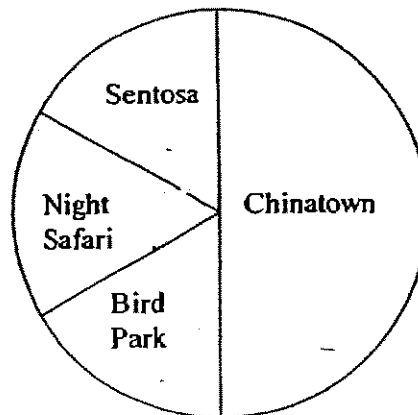
    (1)   306
    (2)   459
    (3)   612
    (4)   918

12. It takes 5 men to paint a house in 6 days.

At this rate, how many days will 15 men takes to paint the similar house?

(1) 1

(2) 2

(3) 12

(4) 18

13. Mrs Wang wants to cover part of a rectangular wall, 100 cm long by 50 cm wide using identical black and white triangular tiles as shown below.

How many **more** black triangular tiles must she use to complete the tiling pattern?
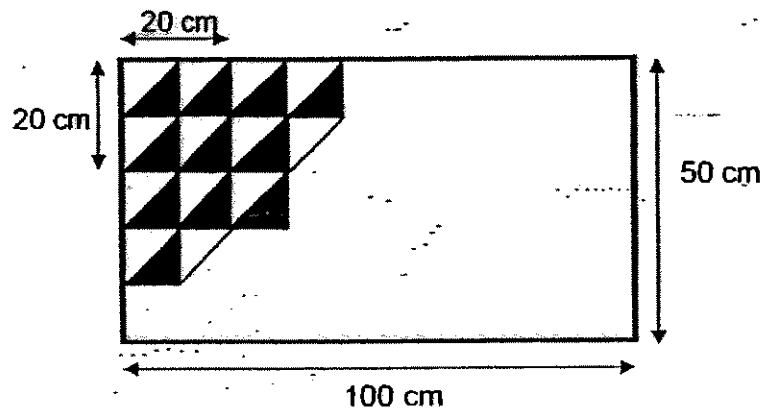
(1) 38

(2) 39

(3) 76

(4) 78

14. The figure is made up of squares of equal size.

How many <u>more</u> unshaded squares should be added so that 25% of the new figure is shaded?
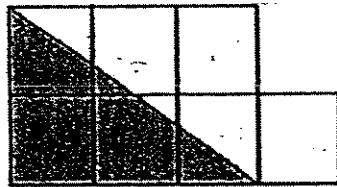
(1) 1

(2) 5

(3) 3

(4) 7

15. A piece of paper is folded into half as shown below.

The breadth of the folded paper is 6 cm.

The perimeter of the folded paper is 30 cm.

Find the perimeter of the original unfolded paper.

Unfolded   **Folded**

6 cm
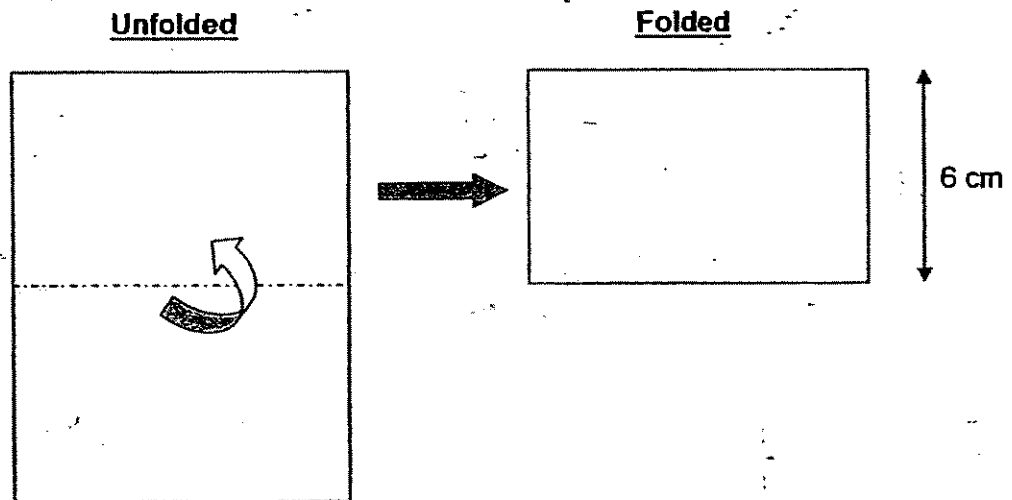
(1) 42 cm

(2) 48 cm

(3) 54 cm

(4) 60 cm

END OF SECTION A

SECTION B (30 marks)

Question 16 to 25 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. All diagrams are not drawn to scale. Answers in fractions or ratio must be expressed in the simplest form.

16. Which of the following numbers is the **smallest**?

    1 009 001   1 901 000   1 090 100   1 000 109

    Ans: _____

17. Evaluate $\frac{2}{3} \div 6$

    Ans: _____

18. A square has an area of 0.04 m².

    If the square is cut into 8 equal triangles, what is the area of each triangle?

    Ans: _____ m²

19. What is the weight of block Y in grams?
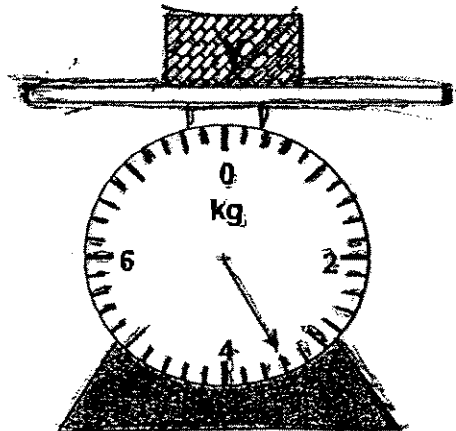
    Ans: _____ g

20. A solid metal block 2 cm by 4 cm by 8 cm is melted and moulded into a metal cube. What is the length of one side of the cube?

Ans:_____cm

21. The graph below shows the time taken by 4 swimmers to complete a 200-m lap.
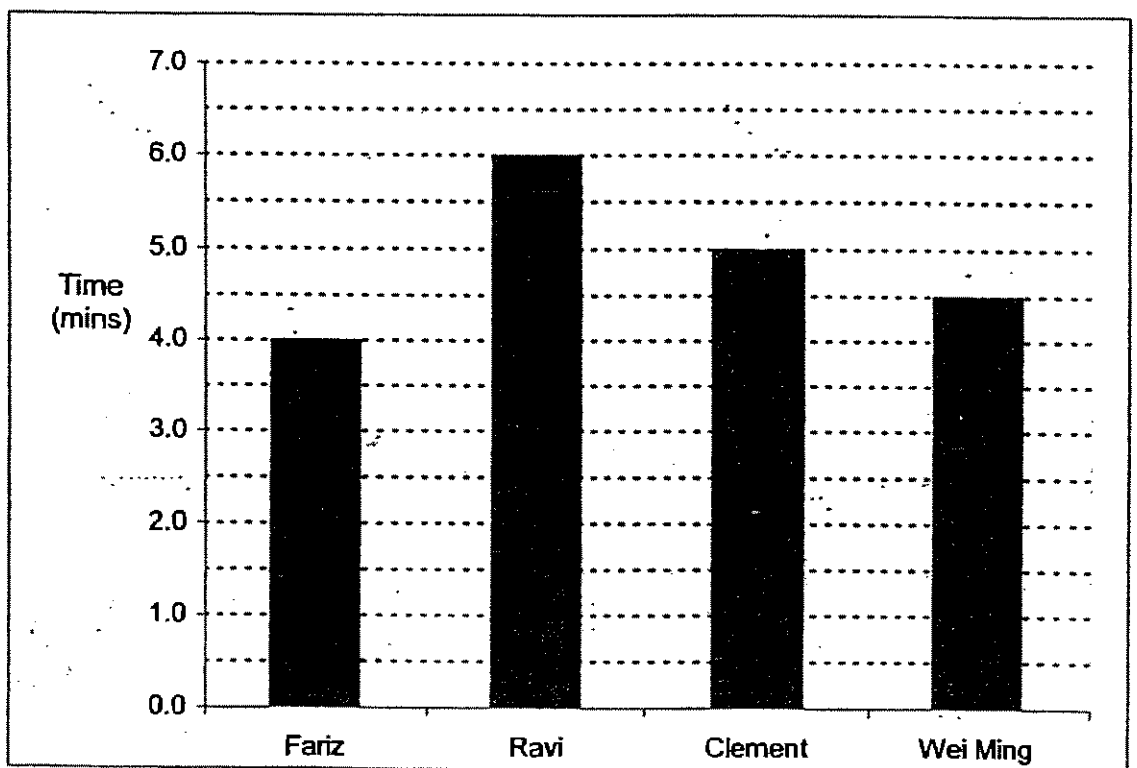
Who is the fastest swimmer?

Ans: _____

22. There are 50 girls and 40 boys at a party. How many percent more girls than boys are there at the party?

Ans:_____%

23. Study the pattern below and fill in the missing number in the last triangle.
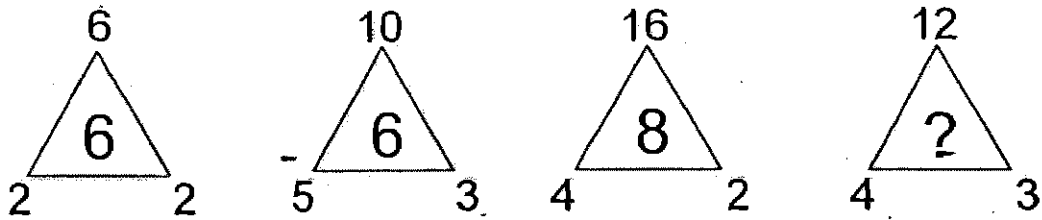
Ans: _____

24. The figure shows the net of a 2-cm cube.
Find the perimeter of the net.
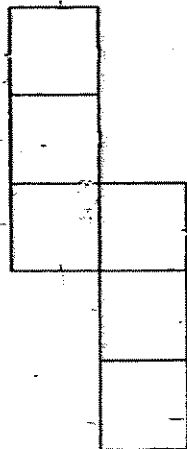
Ans: _____ cm

25. Two friends paid $144 each for renting a car for 10 days.
What was the cost of renting the car per day?

Ans: $_____

Question 26 to 35 carry 2 marks each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. All diagrams are not drawn to scale. Answers in fractions or ratio must be expressed in the simplest form. Marks will be awarded for relevant working.

26. Mary is $2p$ years old.

Tom is 4 years older than her.

What is their total age? (Give your answer in terms of p)

Ans: _____ years old

27. There are 10 boys and twice as many girls in a class.

If they share 600 sweets equally, how many sweets does each child get?

Ans: _____

28. Line BC is one side of a parallelogram.

Draw and label the parallelogram ABCD where $\angle ABC$ is 70° and AB is 5 cm.

B   C

29. At 8 a.m., a truck left Town X for Town Y which was 366 km away.
Find the average speed of the truck if it reached Town Y at 2 p.m..

Ans: _____ km/h

30. Find the value of $480 - (112 + 8) \div 2 \times 3$

Ans: _____

31. In the figure below, ABCD is a square and EDC is an equilateral triangle.
Find ∠x.
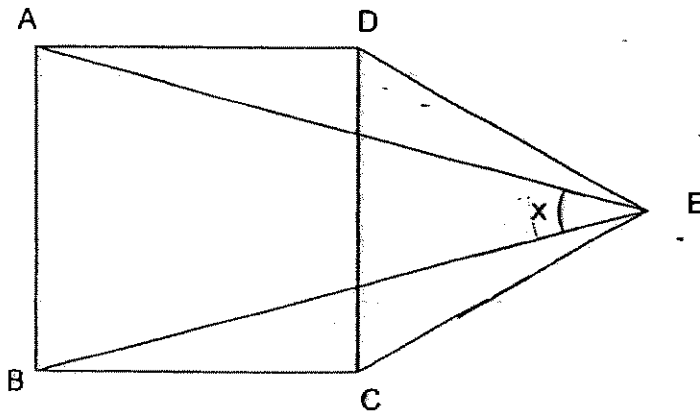
Ans: _____ °

32. A dictionary costs $40.

    A 5% discount is given if 8 or more dictionaries are purchased.

    How much does Mrs Soh need to pay the cashier if she wants to purchase 10

    such dictionaries?

    Ans: $_____

33. Susan wanted to buy 5 pens but she needed $2.60 more.

    She decided to buy 2 pens instead and had $4.15 left.

    Find the cost of a pen.

    Ans: $_____

34. Study the following number pattern.

    ☺ represents a number.

    What is the value of ☺ ?

    $$0.15, \ 0.3, \ \frac{☺}{20}, \ 0.6, \ 0.75, \ \frac{☺}{10}$$

    Ans: _____

35. In the figure below, find the sum of the 6 marked angles.
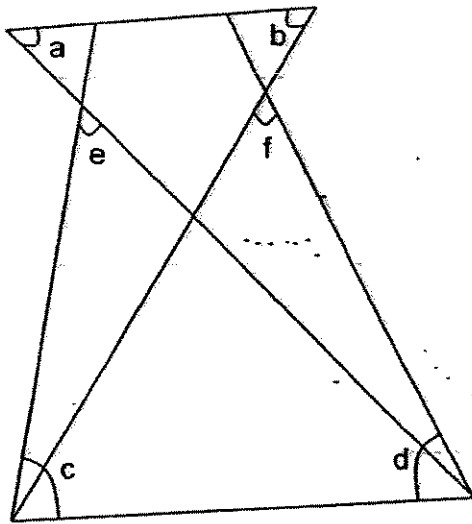
Ans:_____°

END OF SECTION B

Name: _____ (—)   Math Class:

Class: P6 _____   Date: _____

SECTION C (50 marks)

For question 36 to 48, show your working clearly in the space provided below each question and write your answer with suitable units in the spaces provided. All diagrams are not drawn to scale. Answers in fractions or ratio must be expressed in the simplest form. Marks will be awarded for relevant working. The number of marks available is shown in brackets [ ] at the end of each question or part-question.

36. The average mass of 5 boys is 5y kg.

The total mass of another 2 boys is 67 kg.

What is the average mass of the 7 children?

(Express your answer in terms of y)

Ans: _____[3]

37. The figure below is made up of a triangle and a semicircle.

The length of AB is 28 cm.

Find the area of the shaded region.

(Take π as $\dfrac{22}{7}$)
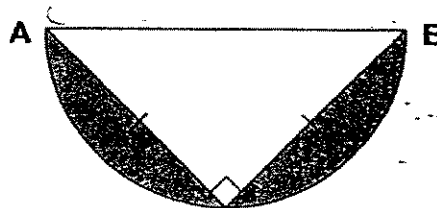
Ans: _____ [3]

38. The pie chart below shows the expenditure of Mrs Wong's monthly salary.
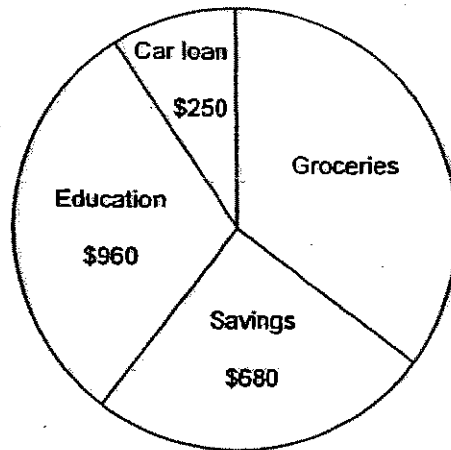
If Mrs Wong spent $\frac{1}{3}$ of her monthly salary on groceries, how much was her monthly salary?

Ans: _____ [3]

39.   James used 12 litres of syrup to make fruit punch.

For every litre of syrup, he added 3.5 litres of water.

The fruit punch was then poured into cups of 200 ml for sale.

(a) How many cups of fruit punch did he get?

(b) If each cup of fruit punch was sold for $0.50, how much money would James collect?

Ans (a) _____ [3]

(b) _____ [1]

40. A rectangular tank with 5 identical solid metal cubes was filled to the brim with water.

Water was drained out of the tank through a tap at a rate of 2 litres per minute.

It took 18 minutes for the water level to drop to the height of the metal cubes.

Find the volume of the 5 metal cubes.

20 cm

40 cm

60 cm
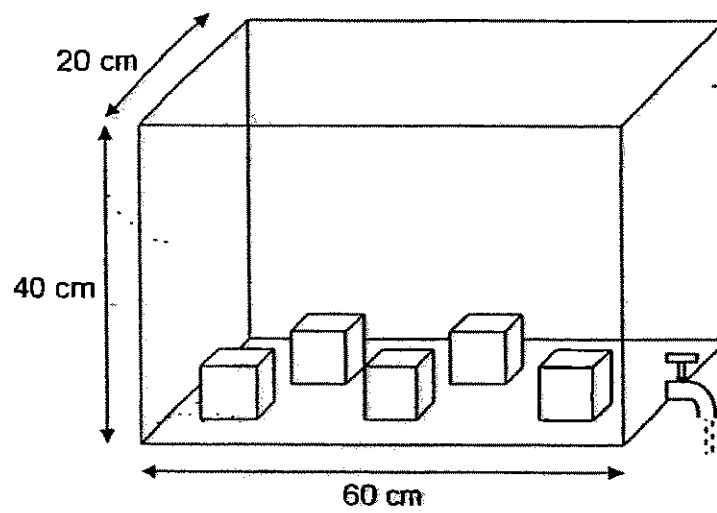
Ans: _____ [4]

41. Jane started driving at 9.30 a.m. from Town A to Town B.

    At 11.30 a.m., Jane had covered only $\frac{2}{5}$ of the distance.

    She had to cover another 144 km before she reached Town B.

    (a) What was the distance between Town A and Town B?

    (b) If Jane were to travel at an average speed of 72 km/h after 11.30 a.m., at what time would she reach Town B?
    (Express your answer using the 24-hour clock)

Ans: (a) _____ [2]

(b) _____ [2]

Page 18 of 24

42. The figures below are made up of squares and triangles formed by lines.
Study the table below carefully and then answer the questions that follow.
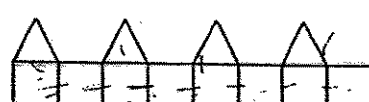
Figure 1   Figure 2   Figure 3   Figure 4

Figure	1	2	3	4	5		20
Number of Lines	9	17	25	33	(a)		(b)

(a)   How many lines are there in Figure 5?

(b)   How many lines are there in Figure 20?

(c)   How many lines would there be in the figure that has 150 squares?

Ans: (a) _____ [1]

(b) _____ [1]

(c) _____ [3]

43. There are some red and green beads in a container.

    If 75 more green beads are put into the container, the percentage of red beads will decrease from 30% to 20%.

    How many red beads are in the container?

Ans: _____[3]

44. A group of pupils sat for two tests, test A and test B.

    The number of pupils who failed test A was $\frac{1}{7}$ of those who passed test A.

    Given that there were 20 pupils who failed test A,

    (a)   how many pupils passed test A?

    (b)   The number of pupils who failed test B was $\frac{1}{4}$ of those who failed test A. What fraction of the pupils passed test B?

Ans: (a) _____[1]

(b) _____[2]

45. The figure below shows a rectangle PQRS.

The lines are extended from point P, Q, R and S and they meet at point Y.

The length of QR is 20 cm and the length of XY is 4 cm.

Given that QS is a straight line, the area of $\triangle PQY$ is 72 cm^2 and the area of $\triangle SRY$ is 84 cm^2, find the shaded area of $\triangle QSY$.

Ans: _____[1]
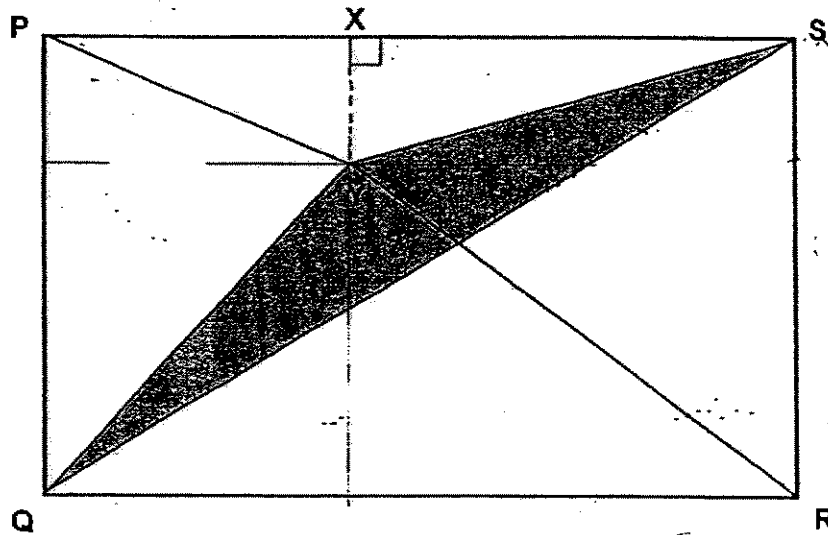
46. At first, the ratio of the number of marbles received by John and Peter was 4 : 7. The ratio of the number of marbles received by Peter and Sam was 9 : 5.

Then, John gave $\frac{1}{12}$ of his marbles to Sam, and Peter gave $\frac{1}{9}$ of his marbles to Sam.

As a result, Sam had 135 marbles in the end.

(a) Find the ratio of the number of John's marbles to the number of Sam's marbles at first.

(b) Find the total number of marbles received by the 3 boys.

Ans: (a) _____ [2]

(b) _____ [3]

47. Melissa spent $\frac{3}{8}$ of her money on 3 pencils and 8 pens, and $\frac{4}{5}$ of the remainder on 15 markers.

Each pencil cost $\frac{2}{3}$ as much as a pen.

Each marker cost $0.20 more than a pencil.

What is the cost of a pen?

Ans: _____[4]

48. Valley Department Store sold a dress for $585.

This was 17% more than the price of a similar dress in Wiki Department Store.

During a sale, both stores offered same percentage discount on the dress.

Christine bought the dress in Wiki Department Store and found that she paid

$68 less than the discounted price in Valley Department Store.

(a) Find the price of the dress in Wiki Department Store before the sale.

(b) What is the percentage discount given during the sale?

Ans: (a)_____ [2]

(b)_____ [3]

-End of Paper-
Please check your work carefully ☺

Setters : Wai Sook Har, Tng Jiew Kim, Tan Kim Kian, Marie Loe and Lee Suan Khim
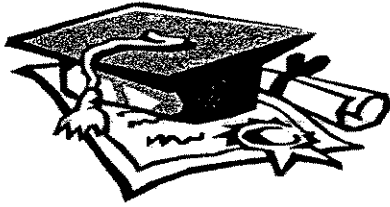
ANSWER SHEET

RAFFLES PRIMARY SCHOOL - PRIMARY 6 MATHEMATICS 2007
SEMESTRAL ASSESSMENT (2)

1. 3
2. 4
3. 3
4. 2
5. 1
6. 4
7. 2
8. 2
9. 1
10. 4
11. T
12. 2
13. 2
14. 2
15. 1
16. 100109
17. 179
18. 0.005 cm2
19. 3400g
20. 4 cm
21. Fariz
22. 25%
23. 6
24. 28 cm
25. $28.80
26. (4p+4)
27. 20 sweets
28.
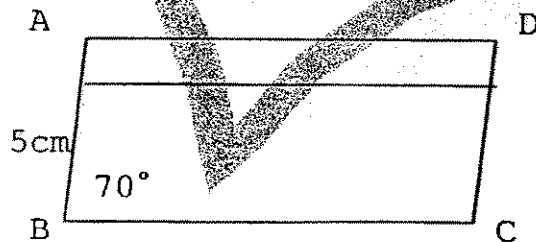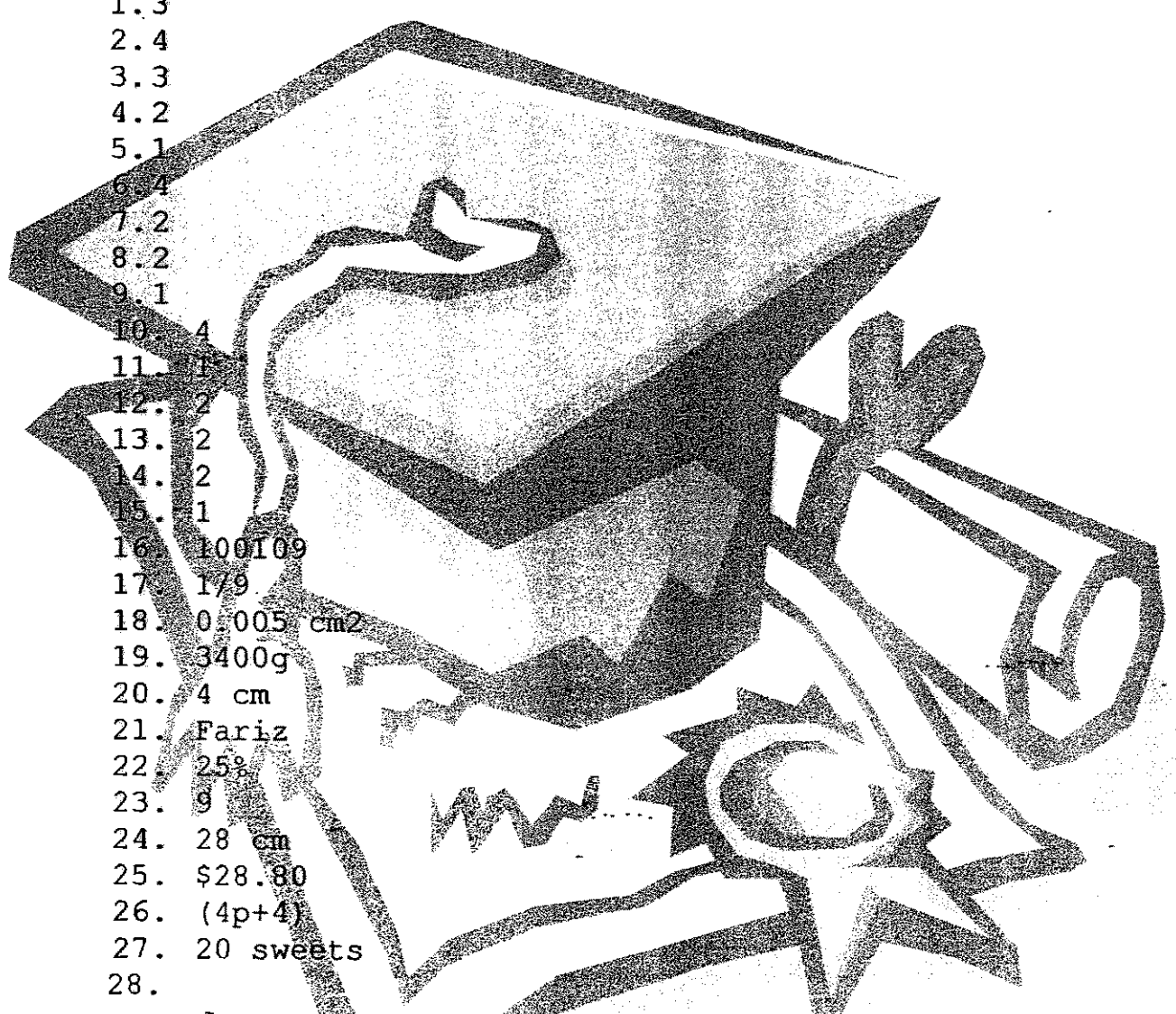
29) 61 km/h
30) 300
31) 30°
32) $380
33) $2.25
34) 9
35) 360 ÷ 4 = 90°
    90 x 4 = 360°

36) 5 x 5y = 25y
    $\frac{25y + 67}{7}$ kg

37) ½ x 14 x 14 x 22/7 = 308
    ½ x 14 x 28 = 196
    308 - 196 = 112cm2

38) 2/3 → 960 + 680 + 250
    = 1890
    1/3 → 945
    3/3 → 945 x 3 = $2835

39) a) 42 ι + 12 ι = 54 ι
       54000 ÷ 200 = 270
    b) 270 x 0.5 = $135

40) vol of tank → 20x40x60 = 48000
    Amt of water
    drained out → 1 min → 3 ι
                 18 min → 36 ι
    48 ι - 36 ι = 12 ι (amt of water at metal)
    Base area → 20x60 = 1200
    $\frac{1200}{1200}$ = 10 cm (height)
    Vol of 1 → 10x10x10 = 1000
    Vol of 5 → 1000x5 = 5000cm3

41) a) 240km
    b) 1330

42) a) 33+8=41
    b) 161
    c) 601

43) 45 red beads

44) a) 140 pupils
    b) 31/32

45) BOS→72+84=156
    156-(72+40)=44cm2

46) a) 36 : 35
    b) 402 marbles

47) $0.90

48) a) $500
    b) 20%

---end---

Rosyth School
First Continual Assessment 2007
Mathematics
Primary 6

Total ◻/100

Name: _____

Class: Pr 6 - _____ Register No. 38 Duration: 2h 15 min

Date: 27ᵗʰ February 2007   Parent's Signature: _____

BOOKLET A

Instructions to Pupils:

1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. This paper consists of 2 booklets, Booklet A and Booklet B.
4. For questions 1 to 15 in Section A, shade the correct ovals on the Optical Answer Sheet (OAS).
5. ANSWER ALL THE QUESTIONS.

	Maximum	Marks Obtained
Booklet A Section A	20	
Booklet B Section B	30	
Booklet B Section C	50	
Total	100	

* This paper consists of _25_ pages altogether.

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Section A (20 marks)
Questions **1** to **10** carry **1** mark each. Questions **11** to **15** carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.   (20 marks)

1.   If $a = 4$, what is the value of $2a + 5$?

      (1)   9

      (2)   11

      (3)   13

      (4)   40

2.   Which of the following fractions has 14 fifths?

      (1) $\dfrac{5}{14}$

      (2) $\dfrac{4}{5}$

      (3) $2\dfrac{4}{5}$

      (4) $14\dfrac{1}{5}$

3.   Find 40 min as a fraction of 2 hrs.

      (1) $\dfrac{1}{5}$

      (2) $\dfrac{1}{4}$

      (3) $\dfrac{1}{3}$

      (4) $\dfrac{2}{5}$

1

4. The breadth of a rectangle is x cm. Its length is twice its breadth. Find its perimeter.

(1) $3x$ cm

(2) $(2x + 1)$ cm

(3) $6x$ cm

(4) $(4x + 2)$ cm

5. In the figure below, $\angle a + \angle b = \angle d +$ _____.
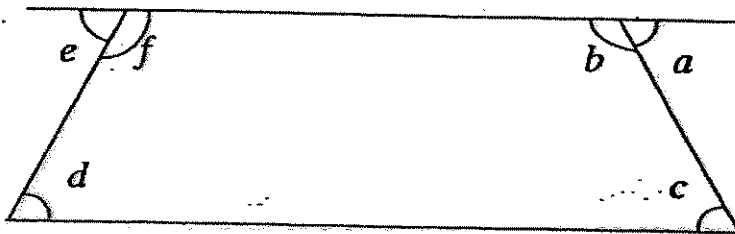
(1) $\angle c$

(2) $\angle d$

(3) $\angle e$

(4) $\angle f$

6. The average of three numbers is 30. If the total of two of the numbers is 47, what is the value of the third number?

(1) 17

(2) 43

(3) 77

(4) 90

2

7.   Which of the shapes below **cannot** be tessellated?
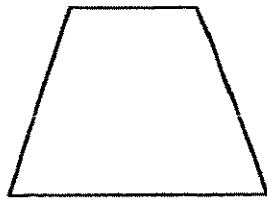
(1)   (2)
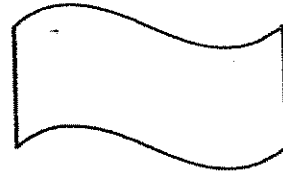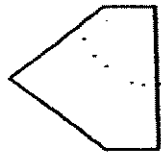
(3)   (4)
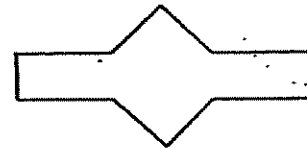
8.   Brenda was born in November 1990. Her sister was born in June 2001.
     What is the difference in their age?

     (1)   9 yrs 6 mths
     (2)   9 yrs 7 mths
     (3)   10 yrs 6 mths
     (4)   11 yrs 7 mths

3

9.   Look at the net below. Which of the following solids can the net form?

(1)   (2)

(3)   (4)
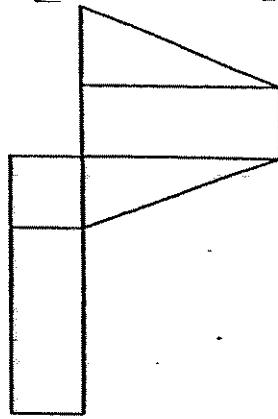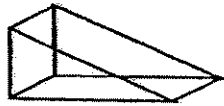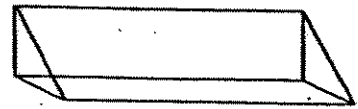
4
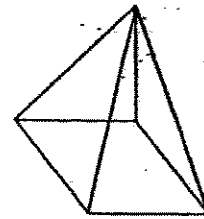
10. A company has 900 workers. There are 200 more foreign workers than local workers. Find the ratio of the number of foreign workers to the number of local workers in the company. (Leave your answer in its simplest form)

  (1)   7 : 5
  (2)   9 : 7
  (3)   11 : 7
  (4)   13 : 9

11. Shu Fen has some pencils. If she gives 3 pencils each to each classmate, she will have 20 pencils left. If she gives 4 pencils each to each classmate, it would be just nice. How many pencils does she have?

  (1)   40
  (2)   80
  (3)   120
  (4)   160

12 Azizul mixed 4 cups of water to one cup of orange syrup to make a drink for his friends. How many cups of orange syrup did he use if he used 52 cups of water?

  (1)   12
  (2)   13
  (3)   14
  (4)   16

5

13. In the figure below not drawn to scale, ABCD is a parallelogram and ADE and CDE are isosceles triangles. ∠ADC is 95° and ∠CDE is 125°. Find ∠DAE.
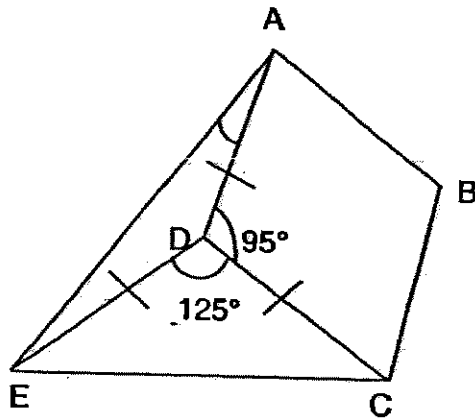
(1)   20°

(2)   40°

(3)   70°

(4)   140°

14. The ratio of Victoria's weekly allowance to Yuan Ming's weekly allowance is 8 : 5. After Victoria spent half of her allowance on a wallet and Yuan Ming spent $24 on a pair of shoes, they found out that they had the same amount of money left. How much more weekly allowance did Victoria get than Yuan Ming?

(1) $24

(2) $72

(3) $120

(4) $192

6

15. Kishen spent $\frac{5}{8}$ of his salary on a refrigerator and gave $\frac{1}{6}$ of the remainder to his mother. If he had $600 left, how much did he spend on the refrigerator?

(1) $375

(2) $600

(3) $1 200

(4) $1 920

Rosyth School
First Continual Assessment 2007
Mathematics
Primary 6

Name: _____

Class: Pr -6- _____   Register No. _____

Date: 27ᵗʰ February 2007   Parent's Signature: _____

BOOKLET B

<u>Instructions to Pupils:</u>
1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. This paper consists of 2 sections, Section B and C.
4. For questions 26 to 48, show all relevant working in the spaces provided.
5. ANSWER ALL THE QUESTIONS.

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Section B

Questions **16** to **25** carry **1** mark each. Questions **26** to **35** carry **2** marks each.
Write your answers in the spaces provided. For questions which require units, give
your answers in the units stated.   (10 marks)

16. $40 \times 10 = 20 \times m$. Find the value of m.

Ans: _____ (1m)

17. Complete the number pattern below:

388, _____, 570, 661, 752

Ans: _____ (1m)

18. Find the value of $8 - 9 \div 3 + 4 \times 8$.

Ans: _____ (1m)

8

19. Find the value of 803×95.

Ans: _____(1m)

20. The figure shown below is a net of a solid. Name the solid.
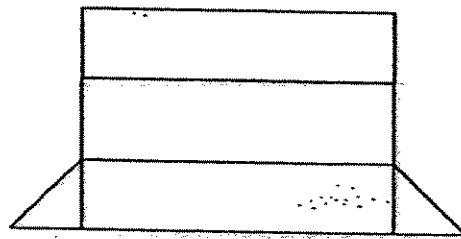
Ans: _____(1m)

21. The sides of a triangle are in the ratio of $3 : 4 : 5$. What fraction of the perimeter is the length of the shortest side?
(Leave your answer in its simplest form)

Ans: _____(1m)

9

22. The ratio of the number of boys to the number of girls in a class is 5 : 8. Express the ratio of the number of girls to the total number of students in the class.

Ans: _____(1m)

23. The diagram below is not drawn to scale. Find the value of $\angle x$.
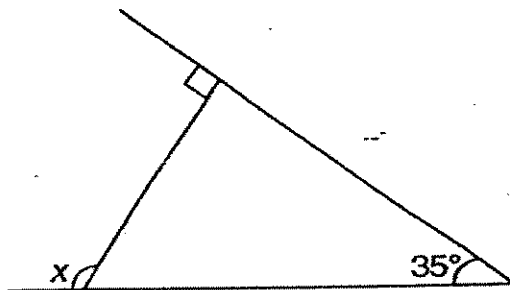
Ans: _____° (1m)

24. $\frac{5}{7}$ of Shing Yi's fish are guppies. $\frac{1}{2}$ of these guppies are male. What fraction of his fish are male guppies?

Ans: _____ (1m)

25. Wen Yi has 4 times as many stickers as Azzimah. If Wen Yi's stickers are doubled, and Azzimah's stickers reduced by half, what is the ratio of Wen Yi's stickers to Azzimah's stickers? (Give your answer in its simplest form)

Ans: _____(1m)

11

Questions 26 to 35 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.   (20 marks)

26. Penny and Lianne had 3 dozen stalks of roses each. Penny sold $\frac{1}{4}$ of her roses while Lianne sold 24 roses. What was the ratio of roses left to the number of roses sold by both girls? (Leave your answer in its simplest form)

Ans: _____ (2m)

27. Make use of the given shape and make a tessellation. Draw at least 4 more of the given shape. (2m)

12
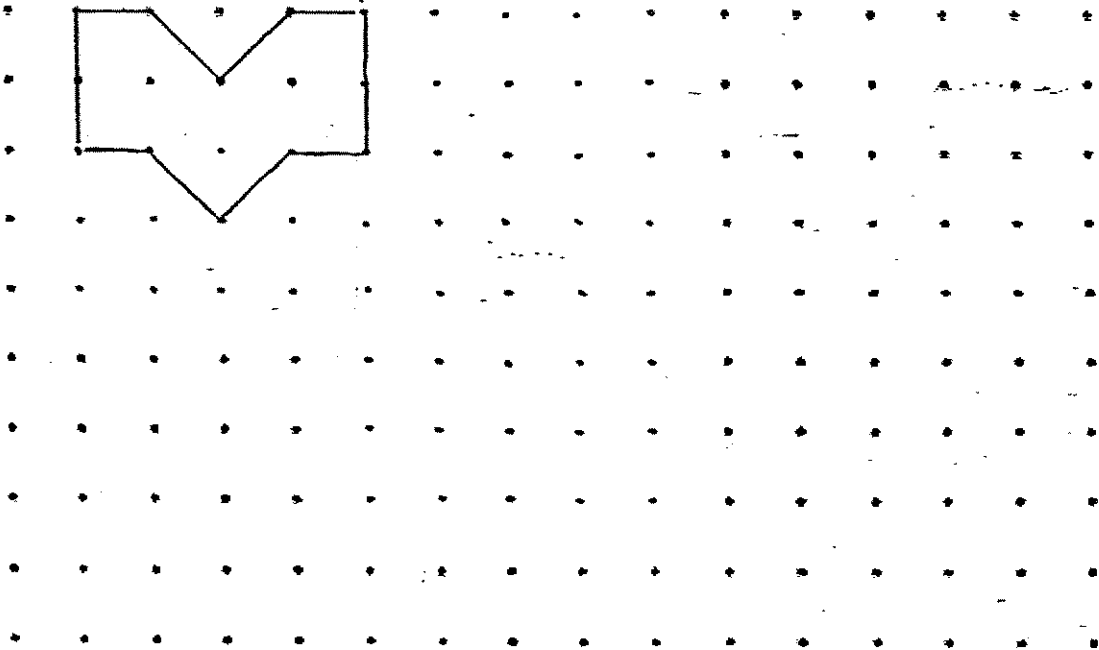
28. Tim has k books. Amanda has 4 times as many books as Tim and Luis has 8 more books than Amanda. What is the average number of books the 3 children have?

Ans: _____(2m)

29. Miss Tiang earns $2 400 a month. She spends $\frac{1}{5}$ of it on food. She saves $\frac{1}{3}$ of the remainder. How much money did she save?

Ans: $_____(2 m)

30. The full marks of each of the 3 tests is 50. The table below shows the marks scored by Hong Yi. How many marks did he get for Test 2?

Test 1	Test 2	Test 3	Average
29	?	43	38

Ans:_____(2m)

13

31. In the diagram below, CDE is a triangle. The point F is on line CD and line EC = line EF. $\angle CEF = 28°$ and $\angle CDE = 42°$. Find $\angle FED$.
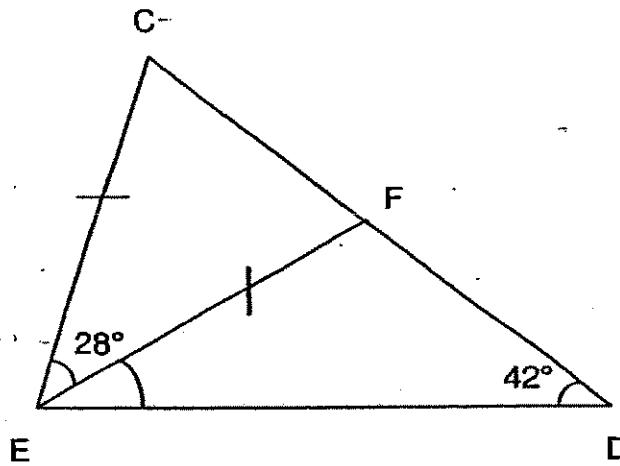
Ans: _____ º (2m)

32. In an English test, Donovan's score was $\frac{3}{4}$ of Shaun's score. Shaun's score was $\frac{5}{6}$ of Tricia's score. What fraction of Tricia's score is Donovan's score? (Express your answer in its simplest form)

Ans: _____ (2m)

33. Clara and Yvette shared some beads in the ratio of 5 : 4. Clara gave $\frac{1}{2}$ of her beads to Yvette who then had 32 more beads than what Clara had left. How many beads did they have altogether?

Ans: _____ (2m)

34. The figure below contains 5 rectangles of equal area. What fraction of the figure is shaded? (Express your answer in the simplest form)
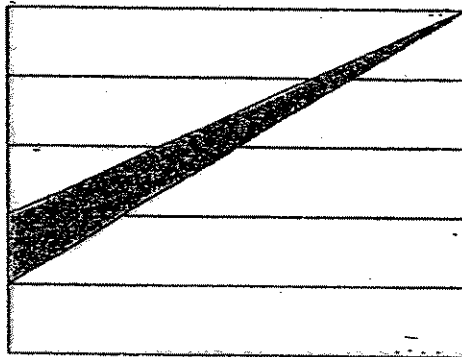
Ans: _____ (2m)

35. Q represents a number between 20 and 30. When Q is doubled, it is 36 more than when Q is halved. Which number does Q represent?

Ans: _____ (2m)

15

Section C (50 marks)

For questions 36 to 48, show your working clearly in the space provided for each question and write your answers in the spaces provided.

The number of marks allocated is shown in brackets [   ] at the end of each question or part question.

36. The number of Chinese at a concert is $\frac{3}{4}$ the number of Malays. The number of Indians is $\frac{1}{3}$ the number of Chinese. If there are 126 Chinese, how many people are there at the concert ?

Ans: _____[3]

37. Meiyi has $y and Cindy has twice as much as Meiyi.
    (a) Express their total amount in terms of y.
    (b) If Cindy has $38, how much do they have altogether?

Ans: (a)_____[1]

(b)_____[2]

16

38. The figure below is not drawn to scale. ABCD is a trapezium. Calculate the sum of $\angle$ x and $\angle$ c.
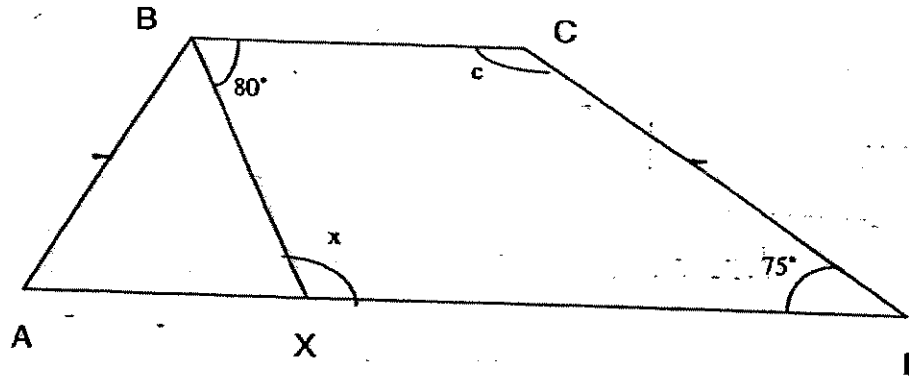
Ans: _____ [3]

39. Anne and Sally had 1436 beads altogether. After receiving 376 beads from Anne, Sally had thrice as many beads as Anne. How many beads did Sally have at first ?

Ans: _____ [3]

17

40. Emily was twice as old as Jimmy 5 years ago. In 10 years' time, Jimmy will be 32 years old. How old is Emily now?

Ans: _____[3]

41. In 2005, the ratio of the number of boys to the number of girls in a school was 4 : 3. In 2006, 1620 more pupils joined the school and there were thrice as many girls and twice as many boys as in 2005.
How many pupils were there in the school in 2006 ?

Ans: _____[3]

18

42. One day, during a pet show-and-tell session in class, 8 pupils brought a dog each while the rest of the pupils brought a cat each. If there were 174 legs altogether in the classroom,
(a) how many pupils were there ?
(b) how many more cats than dogs were there ?

Ans: (a)_____[2]

(b)_____[2]

19

43. Tina, Ken and Roger share 460 marbles. Tina gets 33 more marbles than Ken. Roger gets $\frac{1}{3}$ as many as Ken. How many more marbles than Roger does Ken have ?

Ans: _____[4]

20

44. There are 224 golf balls in Box P and Box Q. When 48 golf balls were transferred from Box P to Box Q, the ratio of the number of golf balls in Box P to Box Q becomes 5 : 9.

(a) How many golf balls should be transferred from Box Q to Box P so that the number of golf balls in both boxes is the same?

(b) What is the ratio of the number of golf balls in Box Q to Box P at first ?
(Leave your answer in the simplest form.)

Ans: (a)_____[2]

(b)_____[2]

21

45. In Semester One, Kelly earned a total of 150 silver and gold stars. Ali earned 55 silver stars and 15 gold stars. Each silver star was worth 3 points. Each gold star was worth 5 points each. Kelly scored 390 more points than him.
(a) How many points did Kelly score ?
(b) How many silver stars did Kelly earn ?

Ans: (a)_____[2]

(b)_____[3]

22

46. Eddy gets $4 more pocket money than Sam each week. They each spend $11 per week on food and save the rest. After a few weeks, Eddy managed to save $65 and Sam only managed to save $45. How much pocket money does Sam get each week ?

Ans: _____[5]

23

47. Eugene spent $\frac{5}{12}$ of his money on 12 magazines and 100 stickers. The next day, he bought another 18 magazines and 112 stickers with the remaining amount of money, How many stickers could Eugene buy with all his money ?

Ans: _____[5]

24

48. The number of tutors to the number of pupils at a tuition centre is 3:22 respectively. The number of girls is $\frac{4}{7}$ the number of boys. If there are 18 fewer girls than boys, how many tutors are there at the tuition centre ?

Ans: _____[5]

End of Paper

Please check your work carefully.

25

ANSWER SHEET

ROSYTH PRIMARY SCHOOL - PRIMARY 6 MATHEMATICS 2007
CONTINUAL ASSESSMENT (1)

1. 3
2. 3
3. 3
4. 3
5. 4
6. 2
7. 4
8. 4
9. 1
10. 3
11. 2
12. 2
13. 1
14. 2
15. 3
16. 20
17. 479
18. 37
19. 76285
20. prism
21. ¼
22. 8:13
23. 125°
24. 5/14
25. 16:1
26. 13:11

27).

28) Tim→K
    Amanda→4K
    Luis→4K+8
    Average→(9K+8)÷ 3
         =3k+8/3

29) $2400÷5=$480
    $2400-$480=$1920
    $1920÷3=$640

30) 43+29=72
    38x3=114
    114-72=42

31) 180° -28° =152°
    152° ÷2=76°
    180° -76° -42° =62°
    62° -28° =34°

32) D:S   S:T
    3:4   5: 6
    15: 20   20:24

$$\frac{D}{T} = \frac{15}{24}$$

$$= \frac{5}{8}$$

33) 72 beads

34) 1/10

35) 24

36) C:M   C:T   C:M:T
    3:4   3:1   3:4:1

$126 \div 3 = 42$
$4+3+1=8$
$42 \times 8 = 336$
There are 336 people at the concert.

37) a) Meiyi→$y
       Cindy→$y x2
       =$2y
     Total→$2y+$y=$3y
     The total amount is $3y
   b) $38÷2=$19
      $19x3=$57
      They have $57 altogether.

38) $\angle c \rightarrow 180° - 75° = 105°$
    $180° - 80° = 100°$
    $180° - 100° = 80°$
    $\angle x \rightarrow 180° - 80°$
    $= 100°$
    $\angle c + \angle x \rightarrow 100° + 105°$
    $= 205°$
    The sum is 205°

39) $1436 \div 4 = 359$
    $359 \times 3 = 1077$
    $1077 - 376 = 701$
    Sally had 701 beads at first.

40) $32 - 10 = 22$
    $22 - 5 = 17$
    $17 \times 2 = 34$
    $34 + 5 = 39$
    Emily is 39 years old now.

41) $8 - 4 = 4$
    $9 - 3 = 6$
    $6 + 4 = 10$
    $1620 \div 10 = 162$
    $9 + 8 = 17$
    $162 \times 17 = 2754$
    There were 2754 pupils in the school in 2006.

42) a) There were 29 pupils
    b) $21 - 8 = 13$
       There were 13 more cats than dogs.

43) $460 - 33 = 427$
    $427 \div 7 = 61$
    $3 - 1 = 2$
    $61 \times 2 = 122$
    Ken has 122 more marbles than Roger.

44)a) 224÷14=16
9-5=4
4÷2=2
16x2=32
32 golf balls should be transferred from box Q to Box P.
b) 16x5=80
16x9=144
80+48=128
144-48=96
Q : P
96 : 128
48 : 64
24 : 32
12 : 16
6 : 8
3 : 4
The ratio is 3:4

45) 15x5=75
165+75=240
240+390=630
a) Kelly scored 630 points.
b) Kelly earned 60 silver stars.

46) $65-$45=420
$20÷4=5
$45÷5=$9
$9+$11=$20
Sam get $20 each week.

47) 12-5=7
    7-5=2
    18-12=6
    112-100=12
    2u→6 magazines +12 stickers
    (6mag+12stic)x2(12mag+24stic)
    100-24=76
    1u→76 stickers
    12u→912 stickers
    Eugene could buy 912 stickers
    with all his money.

48) 18÷3=6
    7+4=11
    11x6=66
    66÷22=3
    3x3=9
    There are 9 tutors at the tuition centre.

---end---

Rosyth School
First Semestral Assessment 2007
Mathematics
Primary 6

Total [/] 100
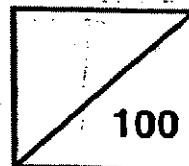
Name: _____

Class: Pr 6-_____   Register No. _____   Duration: 2 hr 15 min

Date: 11 May 2007   Parent's Signature: _____

Instructions to Pupils:
1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. This paper consists of 2 booklets, Booklet A and Booklet B.
4. For questions 1 to 15 in Booklet A, shade the correct ovals on the Optical Answer Sheet (OAS).
5. ANSWER ALL THE QUESTIONS.

	Maximum	**Marks Obtained**
Booklet A	20	
Booklet B Q16 to Q35	30	
Booklet B Q36 to Q48	50	
Total	100	

* This paper consists of _____23_____ pages altogether.

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Section A

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.   (20 marks)

1.   Find the value of 18 000 x 300.

    (1)   5 400
    (2)   54 000
    (3)   540 000
    (4)   5 400 000

2.   How many tenths are there in $1\frac{1}{2}$?

    (1)   10
    (2)   15
    (3)   3
    (4)   4

3.   Express 0.2 as a percentage.

    (1)   0.2%
    (2)   2%
    (3)   20%
    (4)   200%

4.   Simplify 3m x 4 + m + 5.

    (1)   7m + 5
    (2)   8m + 5
    (3)   12m + 5
    (4)   13m + 5

1

5. Ken's mass is $\frac{5}{8}$ of Muthu's mass.

   What is the ratio of Muthu's mass to their total mass?

   (1) 5:8
   (2) 8:5
   (3) 5:13
   (4) 8:13

6. Joyce had $84. She spent $\frac{2}{3}$ of it on some books and saved the rest.

   How much did she save?

   (1) $28
   (2) $42
   (3) $56
   (4) $70

7. Which one of the following statements about the parallelogram is true?
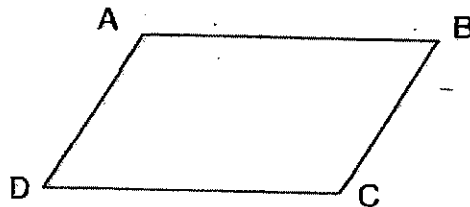
   (1) ∠ABC = ∠BCD
   (2) ∠CDA = ∠DAB
   (3) ∠CBA + ∠DCB = 180°
   (4) ∠ADC + ∠CBA = 180°

2

8. Which of the following is not a net of the solid shown below?

(1)

(2)

(3)

(4)

3
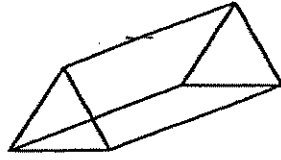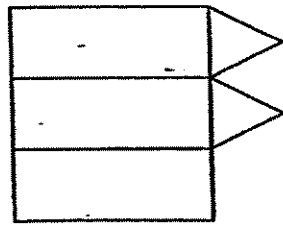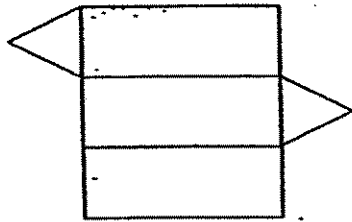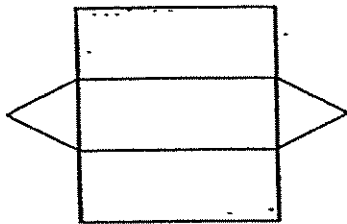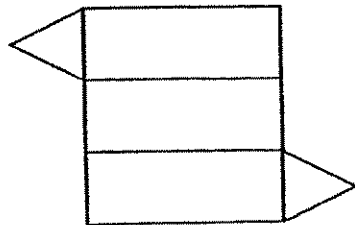
9. Peter was late for his school one morning.

    What is the time shown on the clock?
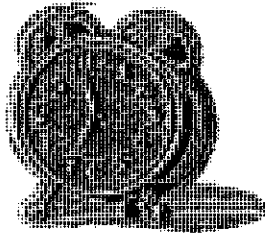
    (1) 06 57
    (2) 07 57
    (3) 18 57
    (4) 19 57

10. A toy car travels at a speed of 300 m/min. The speed is reduced by 20% after the first minute due to a weak battery. If the speed continues to reduce by the same amount every minute, how long does it take for the toy car to stop by the time the battery is flat?

    (1) 36 min
    (2) 15 min
    (3) 5 min
    (4) 4 min

11. Willy and Sam both had some savings. $\frac{2}{3}$ of Willy's savings is $\frac{1}{5}$ of Sam's savings. If Sam saved $84 more than Willy, how much was their total savings?

    (1) $96
    (2) $144
    (3) $156
    (4) $288

4

12. Winnie had four 25-gram weights and four 20-gram weights. She placed some of these weights on a digital weighing scale. Which of the following could be the reading shown on the scale?

    (1) 35 g
    (2) 55 g
    (3) 130 g
    (4) 170 g

13. A CD player and a computer cost $2445. A television set and a CD player cost $645. The computer cost 5 times as much as the television set. How much does the CD player cost?

    (1) $195
    (2) $300
    (3) $360
    (4) $450

14. The following diagram is not drawn to scale. Find $\angle w$.

    (1) 47°
    (2) 58°
    (3) 61°
    (4) 75°
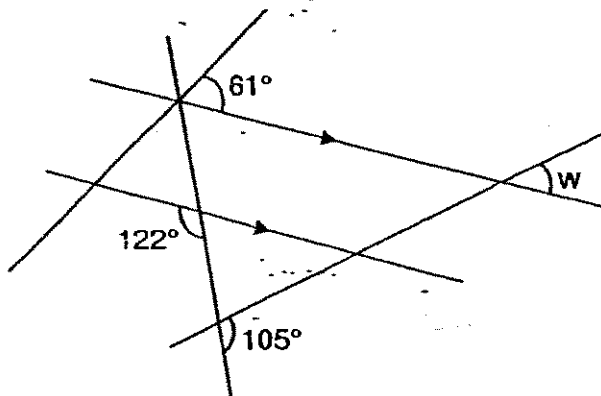
5

15. Justin and Mingli had 128 stamps altogether. The ratio of the number of Justin's stamps to the number of Mingli's stamps is 1:3. If Mingli gave $\frac{1}{6}$ of his stamps to Justin, find the difference in the number of stamps between Justin and Mingli.

(1) 16
(2) 32
(3) 48
(4) 80

6

Rosyth School
First Semestral Assessment 2007
Mathematics
Primary 6

Name: _____

Class: Pr 6-_____   Register No. _____

Date: 11 May 2007   Parent's Signature: _____

BOOKLET B

Instructions to Pupils:
1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. This booklet consists of 3 sections.
4. For questions 16 to 48, show all relevant working in the spaces provided.
5. ANSWER ALL THE QUESTIONS.

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Section B

Questions 16 to 25 carry 1 mark each. Questions 26 to 35 carry 2 marks each.

Write your answers in the spaces provided. For questions which require units,

give your answers in the units stated.   **(10 marks)**

16. Write 1 million, 2 hundred and forty thousand and thirty in figures.

Ans: _____

17. Find the value of 8001 − 426 .

Ans: _____

18. The table shows the times taken by 4 adults in a swimming race.

Who came in last in this race?

Name	Time (seconds)
Mark	55.25
Ahmad	52.98
Ramesh	54.9
Adrian	55.3

Ans: _____

19. Find the value of $\dfrac{4}{7} \times \dfrac{3}{8}$. (Give your answer in its simplest form.)

Ans: _____

7

20. What is 35% of $600?

Ans: $_____

21. Kassim cycles to school at a speed of 5 km/h. He takes 12 minutes to reach his school. What is the distance between his home and school?

Ans: _____km

22. The ratio of the number of oranges to the number of pears in a box is 5:9. If there are 55 oranges, how many pears and oranges are there altogether in the box?

Ans: _____

23. What is the value of P? Express your answer as a fraction in its simplest form.

Ans: _____

8
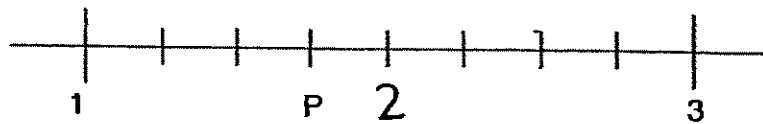
24. A rectangle has a length of 4r cm and breadth of 3 cm. Find its perimeter.

Ans: _____cm

25. Meiling uses 3 teaspoons of salt for every 7 cups of water to make a bottle of solution. Using the same proportion, if she makes 40 bottles of solution, how many teaspoons of salt does she use?

Ans: _____

9

Questions 26 to 35 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.   (20 marks)

---

26. Nurul is a young child who grows by 5 cm every year. If she is 110 cm tall now, what will be her height in $2\frac{1}{2}$ years' time?

Ans: _____ cm

---

27. Daryl has 40 marbles. Adeline has twice as many marbles as he. Sherman has 20% more marbles than Adeline. How many marbles does Sherman have?

Ans: _____

---

28. A falcon can fly at a speed of 60 km/h. A hawk can fly at a speed of 100 km/h. If both birds were to travel a distance of 10 km each, how many more minutes would the falcon take than the hawk?

Ans: _____ min

10

29. The table shows the amount of syrup and water Lilian used for making a drink.

Amount of syrup (ml)	400	600	800	1000
Amount of water (ml)	600	900	1200	1500

Using the same proportion, how much water is needed if 500 ml of syrup is used?

Ans: _____ ml

30. Siti saves 25% of her pocket money each month. Her mother gives her $200 as pocket money each month. How much will she save in a year?

Ans: $_____

31. The ratio of the number of bookmarks Kelly has to the number of bookmarks Yiming has is 3:4. The ratio of the number of bookmarks Kelly has to the number of bookmarks Raj has is 2:7. If they have 280 bookmarks altogether, how many bookmarks does Kelly have?

Ans: _____

11

32. Mr Lee wishes to fence up his rectangular garden. The breadth of the garden is b metres. The length is twice its breadth. If the cost of the fencing is $35 per metre, find the cost of fencing the whole garden.

Ans: $_____

33. The ratio of the amount of money Joshua had to the amount of money Ali had was 1:4. After Joshua received $40 from his mother, the ratio became 3:8. How much was the total amount of money they had at first?

Ans: $_____

12

34. Jiali has 18 books in her collection. Kumar has thrice as many books as Jiali has. Haresh has half the number of books Kumar has. How many books do the three children have altogether?

Ans: _____

35. Aziz and Manish had some toy cars in the ratio 2:5. After Aziz received 37 toy cars and Manish received 16 toy cars, both boys had an equal number of toy cars. How many toy cars did they have altogether at first?

Ans: _____

13

Section C

For questions 36 to 48, show your working clearly in the space below each question and write your answers in the spaces provided.

The marks for each question or part-question is shown in brackets ( ) at the end of each question. (50 marks)

---

36.   3 pails A, B and C each contained a certain amount of paint. When $\frac{1}{4}$ of the

paint in pail A and $\frac{1}{5}$ of the paint in pail C was poured into pail B, the 3 pails each

had 10.2 litres of paint. How much paint was there in Pail B at first? (Express your answers in millilitres).

Ans : _____(3m)

---

37.   The ratio of Ali's money to Jay's money is 5 : 3. The ratio of Jay's money to Dave's money is 4 : 2. The three boys had a total of $988. How much more money does Ali have than Dave ?

Ans : _____(3m)

14

38. ABCD (not drawn to scale) is a rectangular piece of paper folded along FE.
∠EFG is 25°. Find (a) ∠z
(b) ∠w
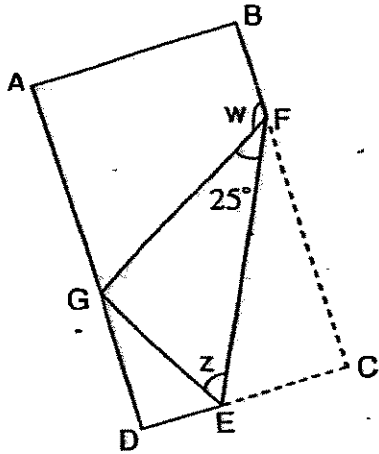
Ans : (a)_____(1m)

(b)_____(2m)

39. 1 durian cost 3 times as much as a mango. Mrs Lee spent $\frac{3}{7}$ of her money on some mangoes and $\frac{1}{4}$ of her remaining money on 3 durians. How many mangoes did she buy?

Ans._____(3m)

15

40. A library had 1560 books and magazines. 25% of them were magazines. After buying more new magazines, the number of magazines became 35% of the total number of books and magazines. How many new magazines were bought ?

Ans : _____(3m)

41. There are 60 shirts and pants in a stall. Each shirt costs $9 and each pair of pants costs $7. If the total cost of the shirts is $188 more than the total cost of the pants, how many shirts are there in the stall?

Ans : _____(3m)

16

42. 60% of the pupils in a training camp wore spectacles. 80 of these pupils were boys and the remaining $\frac{1}{3}$ were girls. 12 girls in the training camp did not wear spectacles. What percentage of the total number of pupils in the camp were boys who did not wear spectacles?

Ans : _____(4m)

43. A cyclist travelled from Town A to Town B at the speed of 29 km/h. After he had travelled 116 km, a motorist whose speed was 3 times that of the cyclist left Town A and travelled along the same route to Town B. How far did the motorist travel when he met the cyclist?

Ans : _____(4m)

18

44.   The number of grey marbles to black marbles in a bowl was in the ratio of 4:5. Later, 8 grey marbles were taken out and 20 black marbles were added into the bowl. After that, the ratio of grey marbles to black marbles became 4:11. How many marbles of each colour were in the bowl in the end?

Ans : Grey marbles :_____

       Black marbles :_____   (4m)

19

45. At first, Eddy had more stickers than Fandi and Gigi had 2 times as many stickers as Fandi. After Fandi bought another 15 stickers, Gigi lost half of what she had and Eddy lost 7 stickers, Fandi now had 2 more stickers than Eddy. In the end, the children had 133 stickers in total. How many stickers did each child have at first?

Ans : Eddy:_____

Fandi:_____   (5m)

Gigi: _____

20

46.   A toy robot is programmed to travel in a straight line and to stop after moving a certain distance in the pattern as shown below:

1st stop   2nd stop   3rd stop   4th stop

X————————X————————X————————————————X

←—10cm—→←——20cm——→←———30cm———→
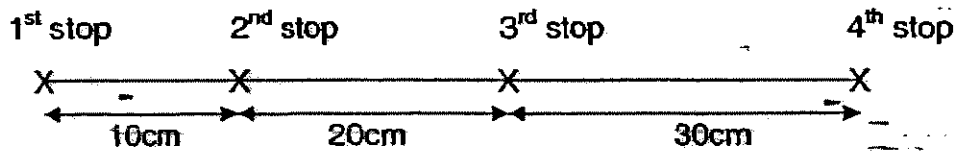
(a)   How far is the 5th stop from the 1st stop?

(b)   What is the distance between the 1st stop and the 100th stop?

Ans : (a) _____(1m)

(b) _____(4m)

47.   Jim and George exchanged stamps with each other. At first, Jim gave $\frac{2}{3}$ of what

he had plus 5 more stamps to George. Then, George gave $\frac{3}{5}$ of what he had to

Jim. Next, Jim gave $\frac{1}{8}$ of what he had to George. In the end, Jim had 343

stamps and George had 257 stamps. How many stamps did each of them have

in the beginning?

Ans : Jim :_____

George :_____   (5m)

48. A box contained some twenty-cent coins, some ten-cent coins and some five-cent coins in the ratio of $3 : 2 : 1$ respectively. $\frac{3}{5}$ of the twenty-cent coins were taken out and replaced by the same number of five-cent coins. Then 120 ten-cent coins were taken out and replaced by the same number of five-cent coins. In the end, the ratio of the number of twenty-cent coins, ten-cent coins and five-cent coins became $6 : 5 : 19$ respectively.

(a) What is the total number of coins taken out of the box?

(b) What is the total value of the coins taken out of the box?

Ans : (a)_____(3m)

(b)_____(2m)

End of Paper
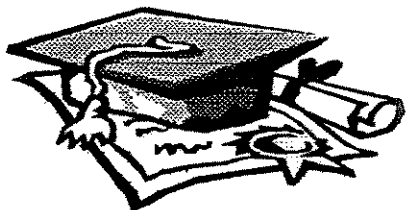
23

ANSWER SHEET

ROSYTH PRIMARY SCHOOL - PRIMARY 6 MATHEMATICS 2007
SEMESTRAL ASSESSMENT (1)

1. 4
2. 2
3. 3
4. 4
5. 4
6. 1
7. 3
8. 1
9. 1
10. 3
11. 3
12. 3
13. 1
14. 1
15. 2
16. 1240030
17. 7575
18. Adrian
19. 3/14
20. $210
21. 1km
22. 154 pears and oranges
23. 1 ¾
24. (8r+6) cm
25. 120 teaspoons of salt
26. 5cm x 2=10cm
     5cm ÷ 2=2.25cm
     10cm+2.25=12.5cm
     110cm+12.5cm=122.5cm

27) 40x2=80
    80→100%
    16→20%
    80+16=96 marbles.

28) Falcon   Hawk
    1h→60km   1h→100km
    10mins→10km   6mins→10km
         10-6=4min

29) 900-600=300
    300÷2=150
    600+150=750ml

30) 25
    100 x 200=50
    50x12=600

31)48 book marks

32) bmx2=2bm
   (2bmx$2)+(bmx2)
   =4bm+2bm
   =66m
   $(6bmx$35)=$210b

33)$400

34) Jiali→18 books
   Kumar→18x3=54 books
   Haresh→54÷2=27 books
   27+54+18=99 books

35)5-2=3
   37-16=21
   3u→21
   1u→7
   7u→49 toy cars

36)10.2÷3=3.4
   10.2÷4=2.55
   3.4+2.55=5.95
   10.2-5.95=4.25
   =4 ¼ l
   =4250ml
   There was 4250ml of paint in pail B at first.

37)$988÷19=$52
   10-3=7
   $52x7=$364
   Ali have $364 more than Dave.

38)a)180° -25° -90° =65°
       ∠z is 65°
   b)180° -25° -25° =130°
       ∠w is 130°

39) 7-3=4
    4÷4=1
    1u→3 durian
    1u→3x3=9 mangoes
    3u→9x3=27 mangoes
    She bought 27 mangoes

40) $\frac{75}{100}$ x1560=1170
    1560-170=390
    100%-35%=65%
    65%-->1170
    5%-->90
    35%-->630
    630-390=240
    240 new magazines were bought

41) There are 38 shirts in the stall.

42) 2/3→80
    1/3→40
    3/3→120
    60%-->120
    20%-->40
    100%-->200
    200-120=80
    80-12=68
    $\frac{68}{200} = \frac{34}{100}$
    =34%
    34% of the total number of pupils in the camp
were boys who did not wear spectacles.

43) 116km÷29km=4h
    29kmx3=87km

Cyclist		Motorist
116km	o h	0 km
174km	1st	87km
174km	2nd	174km

The motorist traveled 174km when he met the
cyclist.

44) There were 20 grey marbles and 55 black marbles
in the end.

45) 15-2=13
    133-13-15=105
    105÷3=35 (Fandi)
    35+13+7=55(Eddy)
    35x2=70(Gigi)
Fandi had 35 stickres, Eddy had 55 stickers and
Gigi had 70 stickers at first.

46) a) 30cm+10cm=40cm
       40cm+30cm+20cm+10cm=100cm
       =1m
       It is 1 m far.
    b) 45000+450=49500cm
       =495m
       The distance is 495m

47) 343÷7=49
    49x8=392 (Jim)
    257-49=208 (George)
    208÷2=104
    104x5=520 (George)
    104x3=312
    392-312=80 (Jim)
    80+5=85
    85x3=255 (Jim)
    520-170=350
    350-5=345 (George)
    Jim have 255 stamps and George have 345 stamps
in the beginning.
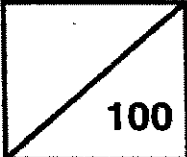
48) a) 336 coins
    b) $55.20

                                        ---end---

Rosyth School
Preliminary Examination 2007
Mathematics
Primary 6

Total [/] **100**

Name: _____

Class: Pr 6-_____   Register No. _____   Duration: 2 hr 15 min

Date: 21st August 2007   Parent's Signature: _____

Instructions to Pupils:
1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. This paper consists of 3 sections: Section A, Section B and Section C.
4. For questions 1 to 15 in Section A, shade the correct ovals on the Optical Answer Sheet (OAS).
5. ANSWER ALL THE QUESTIONS.

	Maximum	Marks Obtained
Section A	20	
Section B	30	
Section C	50	
Total	100	

* This paper consists of __24__ pages altogether.

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Section A (20 marks)
Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.
For each question, four options are given. One of them is the correct answer.
Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer
Sheet.

1. The value of the digit 7 in 1 073 068 is _____.

   (1)   700
   (2)   7 000   (   )
   (3)   70 000
   (4)   700 000

2. Which of the following has the greatest value?

   (1) $\dfrac{7}{10}$

   (2) $\dfrac{5}{8}$ (   )

   (3) $\dfrac{3}{5}$

   (4) $\dfrac{4}{9}$

3. Brandon had 20 words to learn for a spelling test and he spelt 20% of the

   words incorrectly.

   How many words did he spell correctly?

   (1)   2
   (2)   4   (   )
   (3)   14
   (4)   16

1

4.   A machine can print one set of cards in 15 mins.

How many sets of cards can the same machine print in 5 hours?

     (1)   75

     (2)   20   (   )

     (3)   5

     (4)   4

5.   In the figure shown below (not drawn to scale), how many angles inside the figure are greater than 90°?
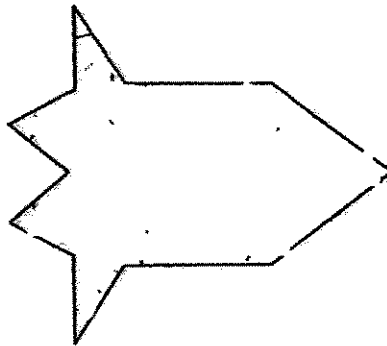
     (1)   5

     (2)   7

     (3)   8   (   )

     (4)   12

6.   Find the area of the shaded portion of the figure, given that the grid is made up of 3-cm squares.
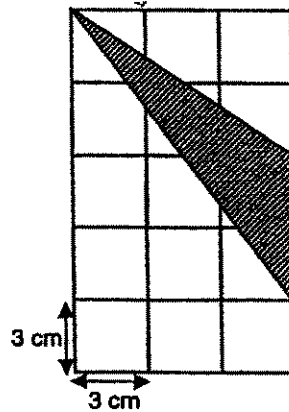
(1)   3 cm^2

(2)   6 cm^2

(3)   27 cm^2

(4)   54 cm^2

(   )

7.   3 pupils share some cards in the ratio 3:9:4.
If the smallest share is 18 cards, how many cards are there in all?

(1)   6

(2)   24

(3)   54

(4)   96

(   )

8.   The average of 5 numbers is 66. The sum of four of the numbers is 60.
Find the fifth number.

(1)   6

(2)   90

(3)   126

(4)   270

(   )

3

9. Express 0.45 as percentage.

   (1)   0.45 %
   (2)   4.5 %
   (3)   45 %
   (4)   450 %

10. The breadth of a rectangle is x cm and the length is 3 times its breadth. Find the perimeter of the rectangle.

   (1) $3x$ cm
   (2) $6x$ cm
   (3) $8x$ cm
   (4) $(2x + 6)$ cm

11. Ashley had a length of string. She gave $\dfrac{1}{3}$ of it to Daisy and $\dfrac{1}{4}$ of the remainder to Jamie. What fraction of the string did Jamie get?

   (1) $\dfrac{3}{4}$

   (2) $\dfrac{1}{2}$

   (3) $\dfrac{1}{4}$

   (4) $\dfrac{1}{6}$

4

14. The pie chart shows the favourite television channel of students in a class
    What percentage of the students in the class chooses Sports as their favourite channel?
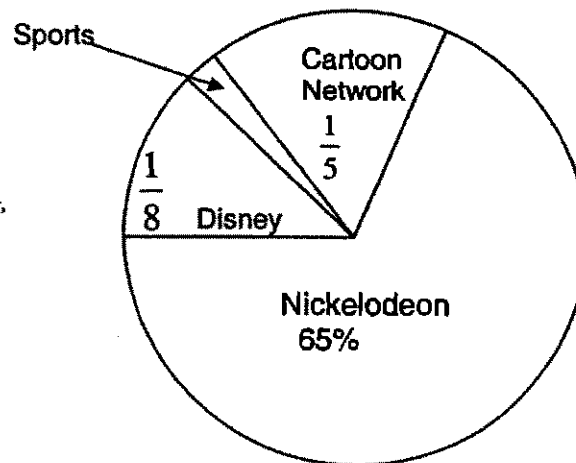
    (1)   2.5%
    (2)   12.5%
    (3)   20%
    (4)   35%

15. The usual selling price of a laptop is $1 800.
    What is its price when there is a 7% discount?
    (1) $126
    (2) $540
    (3) $1 674
    (4) $1 926

6

Rosyth School
Preliminary Examination 2007
Mathematics
Primary 6

Name: _____   Subtotal /80
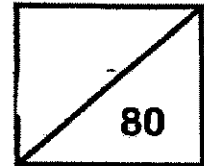
Class: Pr 6-_____ : Register No. _____

Date: 21st August 2007   Parent's Signature: _____

BOOKLET B

Instructions to Pupils:
1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. This booklet consists of 2 parts, Section B and C.
4. For questions 36 to 48 in Section C, show all relevant working in the spaces provided.
5. ANSWER ALL THE QUESTIONS.

Section B (30 marks)
For each question, write your answers in the spaces provided. Show your working below each question. Give your answers in the units stated. Questions 16 to 25 carry 1 mark each. Questions 26 to 35 carry 2 marks each.   .

16. What is the missing number in this sequence?

   2, 6, 12, 20, __?__, 42, ...

   Ans: _____ (1m)

17. Express 57 min as a fraction of 3 hours in its simplest form.

   Ans: _____ (1m)

18. Joseph saves $400 every three months.
    How many years will he take to save $6400?

   Ans: _____ (1m)

19. Which number is both a multiple and a factor of 36?

   Ans: _____ (1m)

7

20. What fraction of the figure below is unshaded?
     (Give your answer in its simplest form).
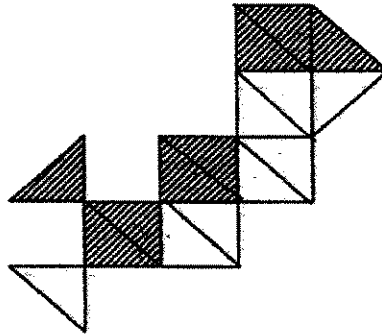
Ans: _____ (1m)

21. 30% of a number is 21. What is 90% of the same number?

Ans: _____ (1m)

22. A solid has a volume of 959 cm^3. If the height of the solid is 7 cm, find the base area.

Ans: _____cm^2 (1m)

8

23. In the figure (not drawn to scale), XYZ is an equilateral triangle. What is the value of $\angle ZXW$?
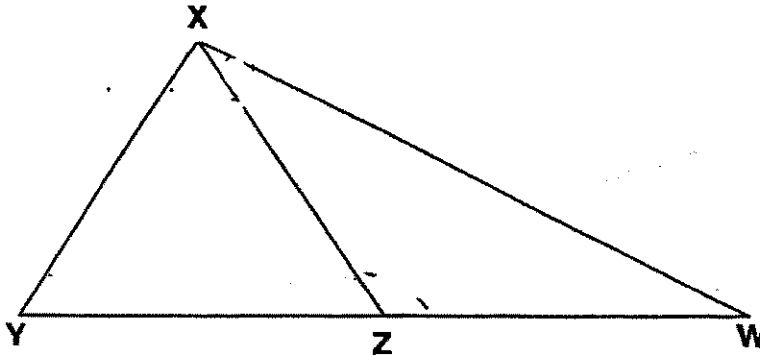
Ans: _____° (1m)

24. The figure below is not drawn to scale. AB and XY are straight lines. Find angle q.
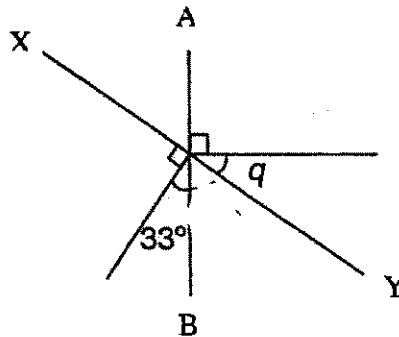
Ans: _____° (1m)

25. An aeroplane travelled 109 408 km in 8 hours. Find the aeroplane's average speed.

Ans: _____km/h (1m)

9

26. In 8 years' time, Richard will be half his mother's age. If his mother is 58 years old now, what is Richard's age now?

Ans: _____ (2m)

27. Harry wants to buy a handphone. His savings is only $\frac{3}{5}$ of the price of the handphone and he needs $112 more. What is the price of the handphone?

Ans: $_____ (2m)

28. Simon bought 45 fifty-cent stamps and some twenty-cent stamps. He gave the cashier $50 and received $15.30 change. How many twenty-cent stamps did Simon buy?

Ans: _____ (2m)

10

29. The figure shows a square and 2 quarter circles. Find the area of the figure. (Take $\pi = \dfrac{22}{7}$)

← 14cm →
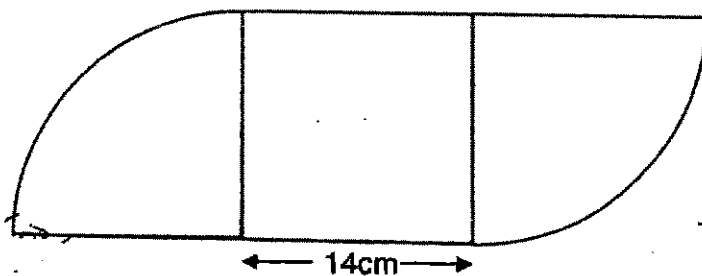
Ans: _____, ____cm² (2 m)

30. The graph below shows the number of visitors at a shopping mall. Study the graph and answer questions 30(a) and 30 (b)
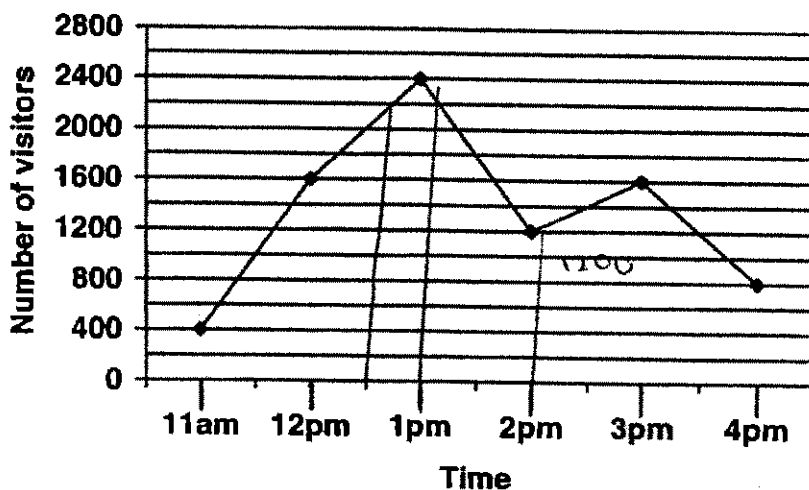
a) How many visitors are there at 12.30 p.m.?

b) What was the decrease in the number of visitors from 1pm to 2pm?

Ans: a) _____ ___ (1m)

b) _____ ___(1m)

11

31.   If a = 6, find the value of 8a − a ÷ 6.

Ans: _____(2m)

32.   The sum of 3 consecutive even numbers is 522. Find the biggest number.

Ans: _____ (2m)

33.   The canteen vendor sold $\frac{1}{5}$ of his puffs on Thursday and $\frac{1}{2}$ of the remainder on Friday. If he sold 19 puffs more on Friday than on Thursday, how many puffs did he sell for the two days altogether?

Ans: _____ (2m)

12

34. The pie chart below shows the amount of money that Tommy spent in a
month.
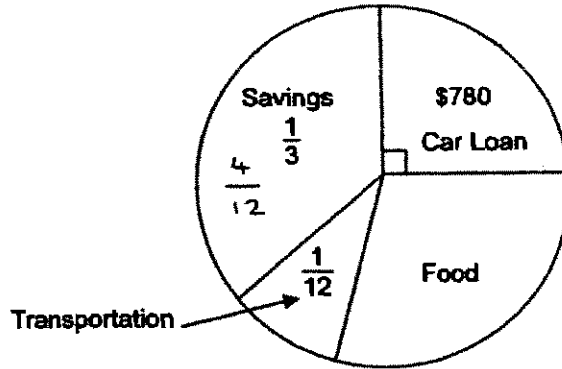
How much did Tommy spend for food ?

Ans: $_____ (2m)

35. The ratio of the number of stamps Michael has to the number of stamps Cheryl
has is 1 : 3. The ratio of the number of stamps Cheryl has to the number of
stamps Vanessa has is 6 : 7. If Michael has 15 stamps less than Vanessa,
how many stamps does Cheryl have?

Ans: _____ (2m)

13

Section C

For questions 36 to 48, show your working clearly in the space below each question and write your answers in the spaces provided.

The marks for each question or part-question is shown in brackets ( ) at the end of each question. (50 marks)

---

36. The average weight of 5 boys is $8w$ kg. When 2 more children whose weights are $11w$ kg and $12w$ kg respectively joined the group, what is the average weight of the boys now ?

Ans: _____ (3m)

---

37. A tank with a square base of side 5 m was $\frac{1}{3}$ full of water. When another

100 m^3 of water was poured into the tank, it became $\frac{1}{2}$ full. Find the capacity

of the tank.

Ans: _____ (3m)

14

38. In the figure not drawn to scale, the ratio of the area of the bigger square to the smaller square is 8 : 4. If 25% of the larger square is shaded, what percentage of the whole figure is _not_ shaded ?

Ans : _____ (3m)

15
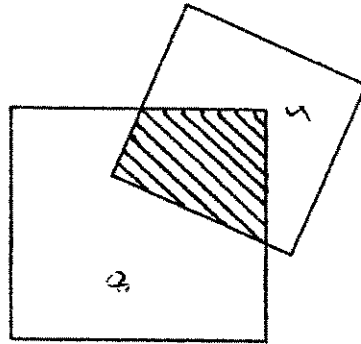
39. Find the sum of the six marked angles in the diagram.

Ans : _____(3m)

16
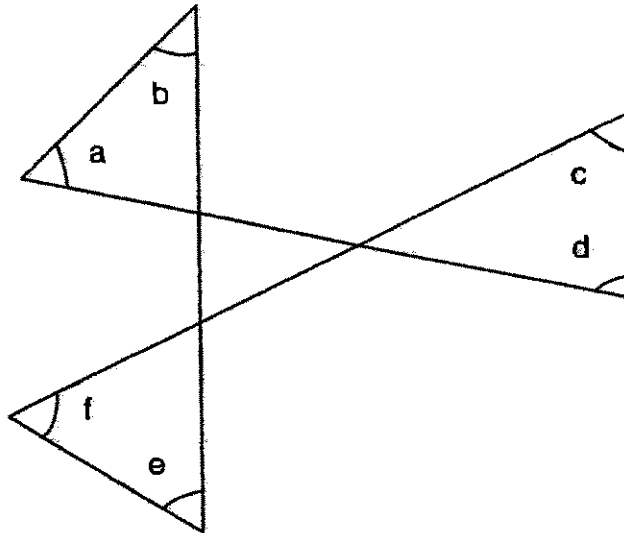
40.   Machine A can do a printing job in 2 hours. Machine B can do the same job in 3 hours. If both machines are used at the same time, how long would it take to complete half the printing job ?

Ans : _____   _____(3m)

41.   The table below shows the rates at which a construction worker is being paid daily.

For first 8 hours of work	$10 per hour (Normal rate)
Overtime pay per hour	1.5 x Normal rate

How many hours must he work in a day to earn $140 ?

Ans : _____(3m)

17

42. Find the area of the figure. (Take $\pi = \dfrac{22}{7}$)

Ans:_____(4m)

18
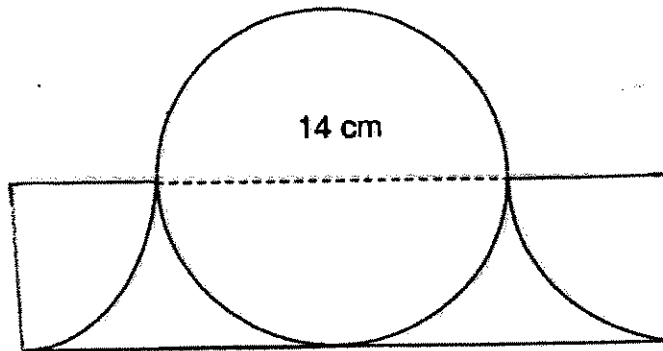
43. The area of the figure ABCD is 48.5 cm². Find the length of BE.
(Give your answer to the nearest tenth)

Ans: _____ (4m)

19
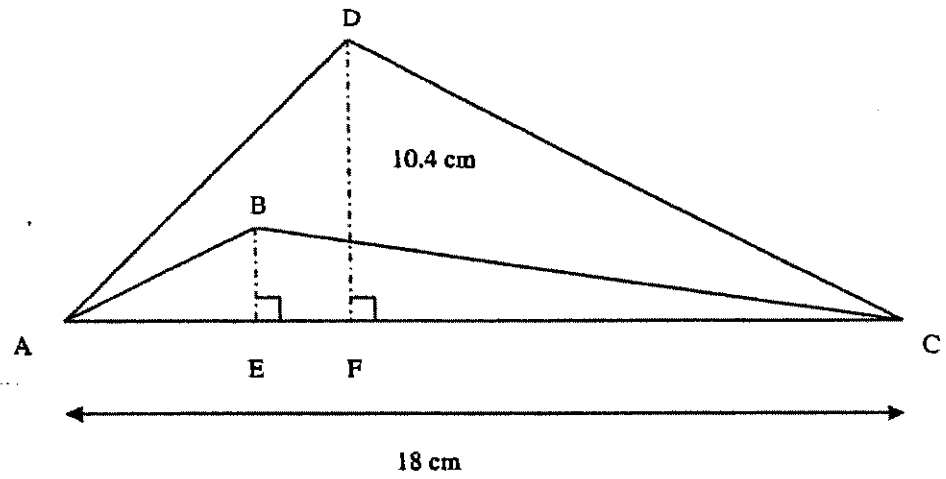
44.   The figure below is not drawn to scale. What fraction of the figure is the total area of the shaded regions A, B, C, D, E, F, G and H ?
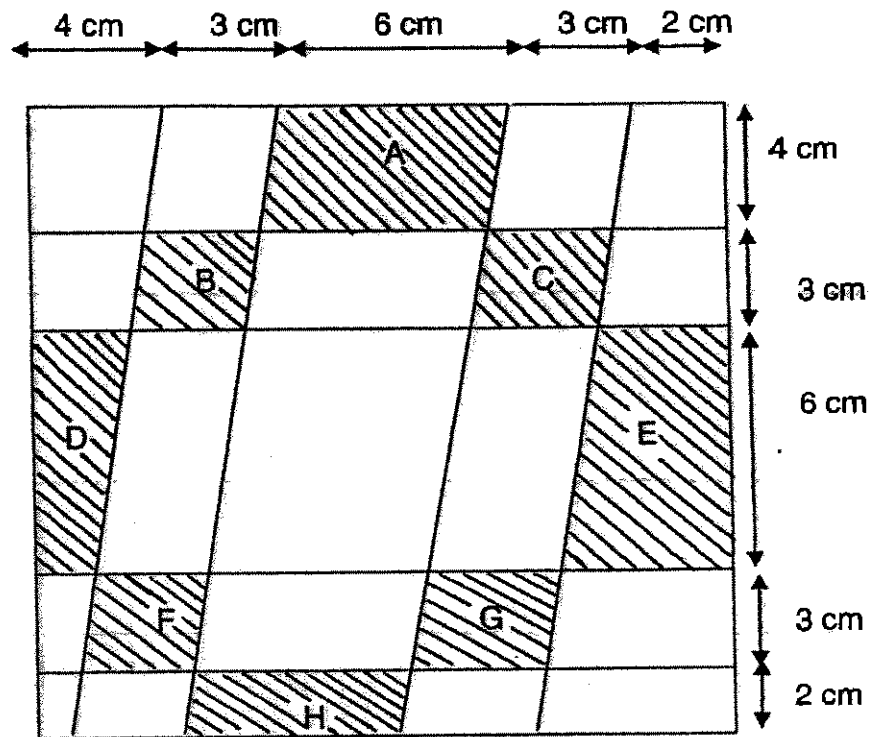
Ans : _____ (5m)

45. The figure shows a cube with 3 painted parts A, B and C. These painted parts are of the same area and they are touching the midpoints of the sides of the cube. The total area of the painted parts is 54 cm². Find the volume of the cube.
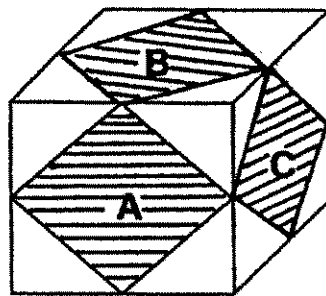
Ans : _____, _____(4m)

46.   The total cost of 28 textbooks and workbooks is $784. $\frac{3}{4}$ of the books are textbooks and the remaining books are workbooks. A workbook cost half as much as a textbook. Find the difference in the price of a textbook and a workbook.

Ans : _____(5m)

47. The perimeter of a rectangle to that of a square is in the ratio of 11 : 6. If the square has an area of 144 m^2 and the length and breadth of the rectangle are in the ratio of 6 : 5, find the length and breadth of the rectangle.

Ans: _____ (5m)

48. A bus was travelling at a constant speed from Town A to Town B. It passed a car traveling at a constant speed of 90 km/h in the opposite direction. $1\frac{1}{2}$ hours later, the bus reached Town B but the car was still 25 km away from Town A. If the bus took 4 hours to complete the whole journey, what is the distance between the two towns ?

Ans: _____ _____ (5m)

End of Paper
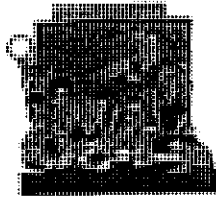
ExamSutra 考试圣经

Answer Sheets

Rosyth /Pri 6 SA2/2007 Maths

1)3	2)1	3)4	4)2	5)2	6)3
7)4	8)4	9)3	10)3	11)4	12)1
13)3	14)1	15)3	16)30	17)$\frac{19}{60}$	18)4 years
19)36	20)$\frac{1}{2}$	21)63	22)137cm^2	23)30^0	24)33^0

25)13676km/h   26)25   27)$280   28)61twenty-cent stamps

29)504cm^2	30)a.2000	30)b.1200	31)47	32)176	33)57
34)$1040	35)18	36)9w kg	37)600m^3	38)80%	39)360^0

40)$\frac{3}{5}$h	41)12 hours	42)196cm^2	43)5.0cm	44)$\frac{1}{3}$	45)216cm^3

46)$16   47)The length is 24m The breadth is 20m   48)256km

Name :_____(·)   Date:_____

Class : Primary 6 SY/C/G/SE/P   Time : 2 h 15 min

SINGAPORE CHINESE GIRLS' SCHOOL

FIRST SEMESTRAL ASSESSMENT 2007

PRIMARY 6 EM 1/2

MATHEMATICS

BOOKLET A

15 Questions

20 Marks

Total Time For Booklets A and B : 2 h 15 mins

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

FOLLOW ALL INSTRUCTIONS CAREFULLY.

ANSWER ALL QUESTIONS.

Booklet A (20 marks)
Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.
For each question, four options are given. One of them is the correct answer.
Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the
Optical Answer Sheet.

1.   How many thousands are there in 2 040 000 ?

     (1)   20 400
     (2)   2040
     (3)   204
     (4)   24

2.   What is the value of $96 \div 8 - 5 \times 2$?

     (1)   14
     (2)   2
     (3)   16
     (4)   64

3. $7 + \dfrac{8}{10} + \dfrac{3}{1000} =$ _____

     (1)   7.38
     (2)   7.83
     (3)   7.083
     (4)   7.803

4.   Sue shared $\dfrac{1}{2}$ of a pizza with her three friends equally. What fraction of the pizza did each get ?

     (1) $\dfrac{1}{3}$

     (2) $\dfrac{1}{4}$

     (3) $\dfrac{1}{6}$

     (4) $\dfrac{1}{8}$

1

5.   Which one of the solids is **not** a prism ?

(1)
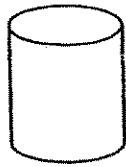
(2)
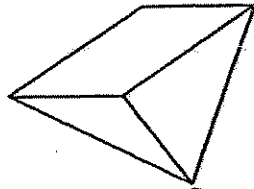
(3)

(4)
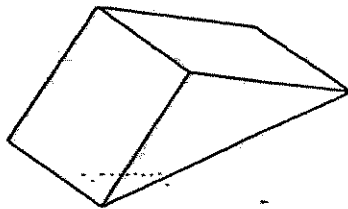
6.   The table below shows the time taken by four swimmers during a competition. Who came in first?

Swimmer	Time in seconds
Audrey	51.2
Beth	50.9
Carrie	52.8
Doreen	53.7

(1)   Audrey
(2)   Beth
(3)   Carrie
(4)   Doreen

2

7. Which one of the following is the same as 6040g?

    (1)   6 kg 4 g
    (2)   6 kg 40 g
    (3)   60 kg 4 g
    (4)   60 kg 40 g

8. Find the area of the circle. (Take $\pi = \dfrac{22}{7}$)

    14cm
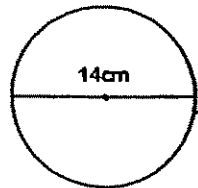
    (1)   616 cm²
    (2)   154 cm²
    (3)   88 cm²
    (4)   44 cm²

9. Miss Lim drove for $2\frac{1}{2}$ hours at 80 km/h. What was the total distance travelled ?

    (1)   80   km
    (2)   160 km
    (3)   200 km
    (4)   240 km

10. Simplify 8a + 9 − 4a − 4 .

    (1)   12a + 13
    (2)   12a − 5
    (3)   4a − 13
    (4)   4a + 5

3

11. There are 15 lamp posts placed at equal distance apart along a straight road. The distance between the first and fifth lamp posts is 10 metres. Find the distance between the first and 15th lamp posts.

    (1)   28 m
    (2)   30 m
    (3)   35 m
    (4)   37.5 m

12. What is the greatest number of 4-cm cubes which can be packed into a container 80 cm by 50 cm by 30 cm?

    (1)   2 080
    (2)   1 875
    (3)   1 680
    (4)   1 500

13. The table below shows Raju's height on the last day of each month from January to May. In which month did he grow the fastest?

Month	Height (mm)
January	1350
February	1390
March	1410
April	1470
May	1520

    (1)   February
    (2)   March
    (3)   April
    (4)   May

4

14.   In the figure shown below not drawn to scale, PQ = PS , QS = SR.

RST is a straight line. Find ∠ PST .
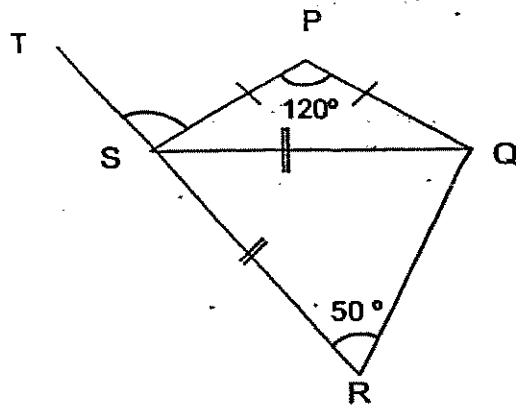
(1)   65°
(2)   70°
(3)   105°
(4)   120°

15.   Study the pattern of the figures below. How many coloured squares will there be when there are 28 white squares?
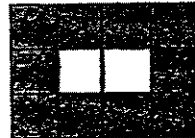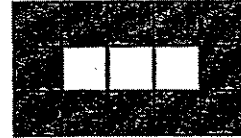
Pattern 1   Pattern 2   Pattern 3

(1)   56
(2)   62
(3)   140
(4)   224

5

Name : _____ (2)   Date: 9th May 2007.

Class : Primary 6 SY/C/$/SE/P   Time : 2 h 15 min

SINGAPORE CHINESE GIRLS' SCHOOL

FIRST SEMESTRAL ASSESSMENT 2007

PRIMARY 6 EM 1/2

MATHEMATICS

BOOKLET B

33 Questions

80 Marks

Total Time For Booklets A and B : 2 h 15 mins

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

FOLLOW ALL INSTRUCTIONS CAREFULLY.

ANSWER ALL QUESTIONS.

Name : _____ (   )

Class : Primary 6 SY/C/S/SE/P

Time : 2 h 15 min

Booklet B (80 marks)
Questions 16 to 25 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

16. Which digit is in the tenths place in 485.31?

Ans: _____

17. Find the value of $2\dfrac{1}{2} - \dfrac{4}{5}$.

Ans:

18. What is the missing number in the box ?

2650 x 99 = 2650 x ⬚ — 2650

Ans: _____

19. What is the length of the eraser?

Ans: _____ cm

4

6

Do not write
in this column
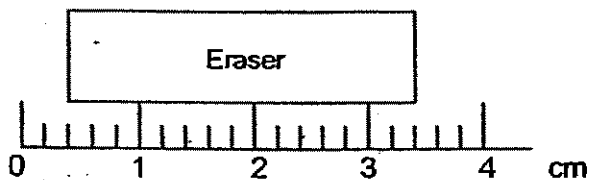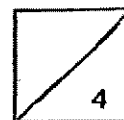
20. Mr Singh needs one parking coupon for every $\frac{1}{2}$ hour. How many

coupons does he need for $3\frac{2}{3}$ hours ?

Ans: _____

21. Yu Kai watched a show for 1 hour 50 minutes. It ended at 13·05.
What time did he start watching the show?

Ans: _____

22. The volume of a cube is 216 cm³. What is the length of each edge
of the cube?

Ans: _____ cm

3
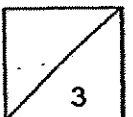
23. In the figure which is not drawn to scale, PQRS is a parallelogram and ∠PSR is 125°. PQT is a straight line. Find ∠RQT.

T

Q   R

125°

P   S
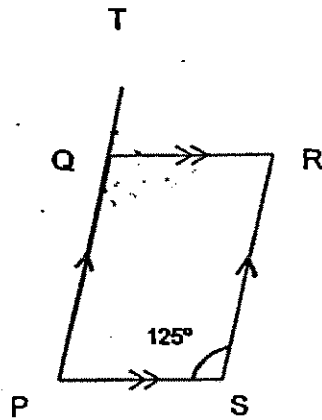
Ans:_____°

---

24. Hazel jogged round a 300-m track. What was her average speed if she took 15 minutes to jog a complete round ?

Ans: _____m/min

---

25. Express 20 as a percentage of 500.

Ans:_____%
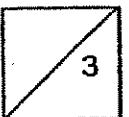
3

8

Questions 26 to 35 carry 2 marks each.
Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.   **(20marks)**

26.   The average mass of 3 boys was 45 kg. When the mass of the 4th boy was included, the average mass was 52 kg. What was the mass of the 4th boy ?

Ans: _____kg

27.   Mabel read some pages of a book on Monday. She read $\frac{2}{5}$ of the book on Tuesday. If she still had $\frac{1}{4}$ of the book to read, what fraction of the book did she read on Monday?

Ans: _____

28.   Find the perimeter of the quadrant. (Take π = 3.14)

5cm

Ans: _____ cm

6

9
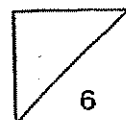
29.   Find the area of the shaded part of the figure.

1 cm

1 cm
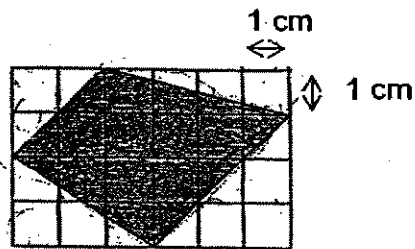
Ans:_____ cm²

30.   Mrs Teo is 5 times as old as Valery. The difference in their ages is 48 years.
       How old is Mrs Teo?

Ans:_____ years

4

10
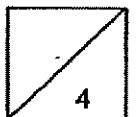
31. In the figure below, find the value of ∠y.
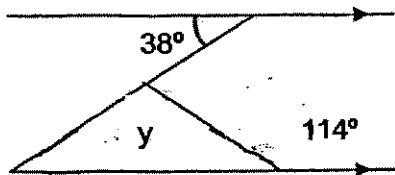
Ans: _____ °

32. A tank is $\frac{2}{3}$ filled with water. When another 24 litres of water are poured in, the tank becomes $\frac{5}{6}$ full. Find the capacity of the tank.

Ans: _____ ℓ

33. During an Art lesson, the pupils have to make key chains using only 2-colours. They have a choice of 5 colours. How many types of 2-coloured key chains can they make?

Ans: _____

6
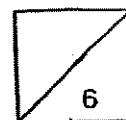
34. $\frac{1}{2}$ of Joe's savings is 3 times as much as David's savings.

What is the ratio of David's savings to Joe's savings?

Ans: _____

---

35.   Isabel completed 40% of her Mathematics questions on Saturday and 70% of the remainder on Sunday. If she had 12 questions left, how many questions did she do on Sunday?

Ans: _____

4

12

Name : _____ (　　)

Class : Primary 6 SY/C/¢/SE/P　　　　　　Time : 2 h 15 min

Write your answers to questions 36 to 48 in the spaces provided.
For each question, show your working clearly in the space provided.
The number of marks available is shown in brackets at the end of each question
or part-question.

36.　There are 40 pupils in each of the three Primary 6 classes in Super

Primary School. The bar graph shows the number of girls in each class.
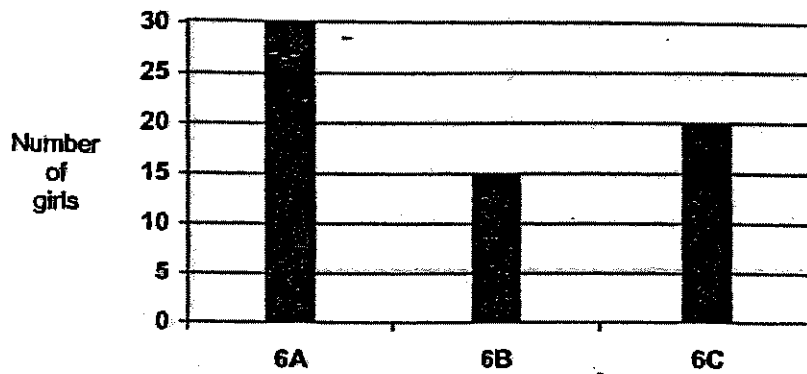
What percentage of the pupils in the Primary 6 classes are boys?

Ans: _____ (3)

3

13
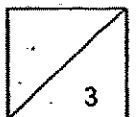
37. In a Mathematics Test, the number of passes is 164 more than the number of failures. If 6 more pupils passed the test, the number of passes will be 9 times the number of failures. Find the total number of pupils who took the test.

Ans:_____(3)

3

14
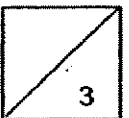
38.   Four Objects A,B, C and D are placed inside a container, one after another. The graph shows the mass of the container when empty and when Objects A, B, C and D are placed in it.
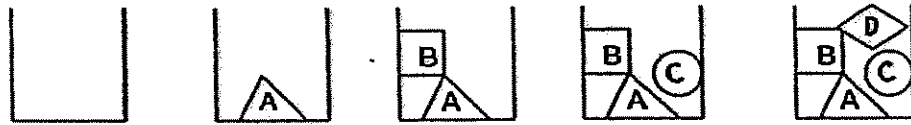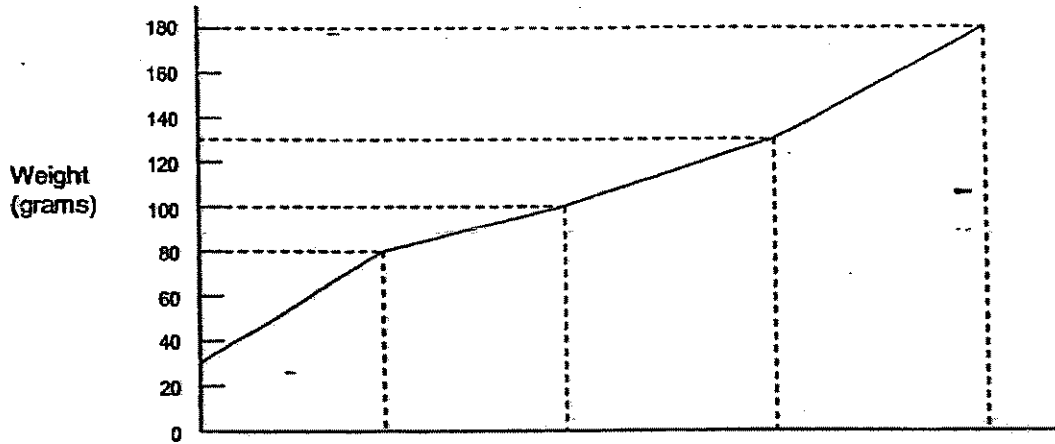
(a)   Name the objects which are heavier than the container.

(b)   Find the average mass of the objects.

Ans: (a) _____ (1)

(b) _____ (2)

3
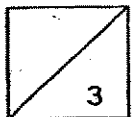
39. All the 5 lines that form the star below are straight lines.

Find $\angle z$.

Ans: _____ (3)

3

16
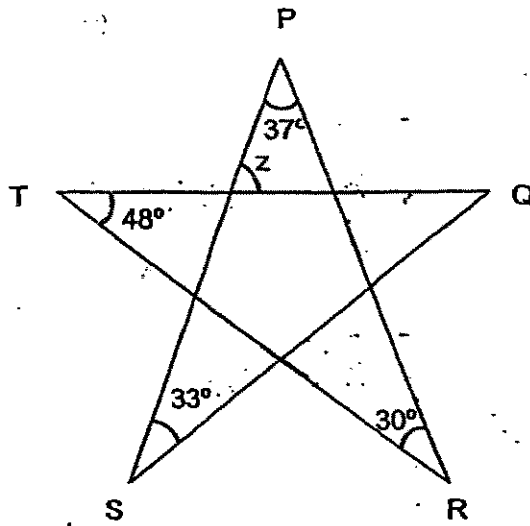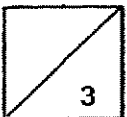
40.   Machine B prints 76 pages in 1 minute. Machines B and C print 664 pages in 4 minutes. How many **more** pages can Machine C print in 1 minute?

Ans: _____(3)

41.   Mdm Tong mixes 24 mℓ of rose syrup, 12 mℓ of condensed milk and 44 mℓ of water to prepare 'bandung' drink. If she needs 3c litres of 'bandung' drink , what is the amount of condensed milk required?

Ans: _____(3)

6

17
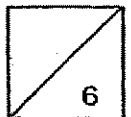
42. Mr Koh sold some peaches on Saturday. For each day from Sunday to Friday, he sold 15 peaches fewer than the day before. He sold a total of 595 peaches. How many peaches did he sell on Saturday?

Ans:_____ (4)

4

18

43. Mrs Eng had a piece of wire. She cut some of the wire to form 6 squares as shown in the figure below. PR = 18 cm and QS = 23 cm. She has 53 cm of wire left. What was the length of wire at first?

Ans: _____ (4)

4

19
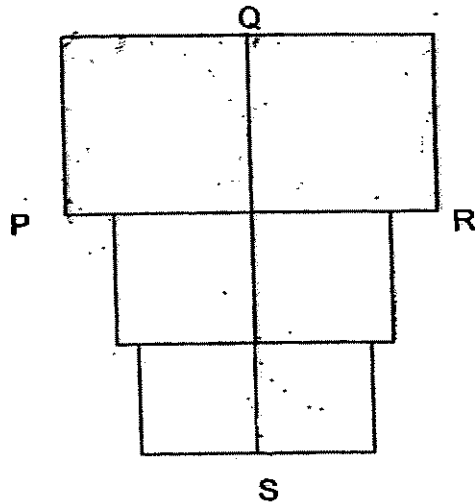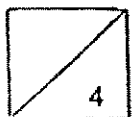
44. A piece of paper in Figure A is folded as shown in Figure B. ∠ YQP is 58°. [The figure is not drawn to scale]

    a.   Find ∠ YPQ .

    b.   Find ∠ YQZ .

Figure A

Figure B

Ans: (a) _____ (2)

(b) _____(2)

4

20
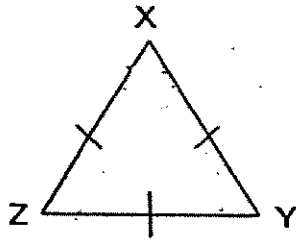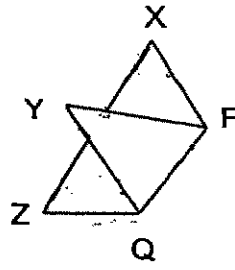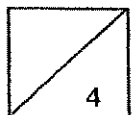
45.   John had $228 and Kevin had $204. Kevin spent thrice as much as John. If John had thrice as much money as Kevin after spending, how much did Kevin spend?

Ans: _____ (5)

5

21
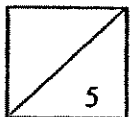
46. The shaded figure below is formed by semicircles, quarter circles and straight lines of length 21 cm each. It lies within a square of side 42 cm. What is the perimeter of the shaded figure ? (Take $\pi = \dfrac{22}{7}$)

21 cm

21 cm

21 cm

21 cm
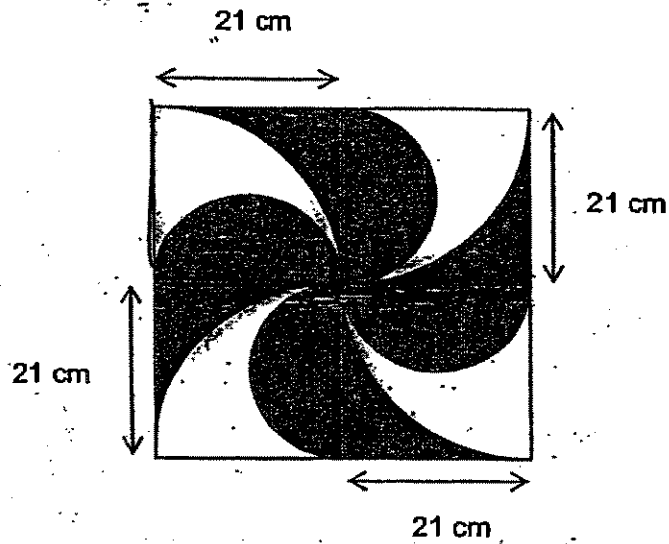
Ans: _____ (5)

5
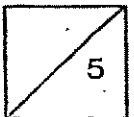
47. Town A and B are 484 km apart. A truck leaves Town A for Town B at 10 45 at an average speed of 64 km/h. At 14 15 , a motorcyclist leaves Town B for Town A at an average speed of 40 km/h. At what time will the two vehicles meet each other ?

Ans: (a) _____ (5)

5

23
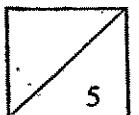
48.   The total sale of different types of printers at Unique Store during its
      special 2-hour sale was $12 150. The number of Printer A and B sold
      was in the ratio 5 : 2. The number of Printer B and C sold was
      in the ratio 3 : 4. The price of Printer A was $50. The ratio of the price
      of Printer A to the price of Printer B to the price of Printer C was 1 : 3 : 6.
      How many printers did the store sell?

Ans: _____(5)

5
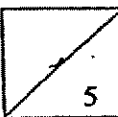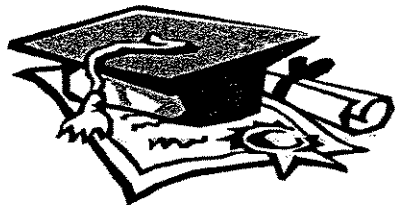
ANSWER SHEET

SCGS PRIMARY SCHOOL - PRIMARY 6 MATHEMATICS 2007
SEMESTRAL ASSESSMENT (1)

1. 2
2. 2
3. 4
4. 4
5. 2
6. 2
7. 2
8. 2
9. 3
10. 4
11. 3
12. 3
13. 3
14. 2
15. 2
16. 3
17. 17/10
18. 100
19. 3cm
20. 8 coupons
21. 1115
22. 6cm
23. 55°
24. 20 m/min
25. 4%
26. 73
27. 7/20
28. 17.85
29. 12.5
30. 60 years
31. 7

32) 144
33) 10
34) 1:6
35) 25
36) Boys in 6A-40-30=10
    Boys in 6B-40-15=25
    Boys in 6C-40-20=20
    Total number of boys→20+25+10=55
    Total pupils in three classes→40x3=120
    percentage→55/120x100=245/6=45 5/6%

37) 8u→6 + 64 + 6=176
    1u→22
    10u→22x10=220

38) A=(80-30)g=50g
    B=(100-80)g=20g
    C=(130-100)g=30g
    D=(180-130)g=50g
    a) A/B
    (50+20+30+50)g=150g
    150g÷4=37.5g
    b) (50+20+30+50)g=150g
        150g÷4=37.5g

39) $\angle z = 180° - (37° + 78°) = 65°$

40) $76 \times 4 = 304$

    $664 - 304 = 360$

    $360 \div 4 = 90$

    $90 - 76 = 14$ pages

41) $24 + 12 + 44 = 80$ mL

    Condensed milk → $12/80 = 3/20$

    $3/20 \times 3c = 9c/20L$

42) Sat: | | 15 | 15 | 15 | 15 | 15 | 15 |

Sun: | | 15 | 15 | 15 | 15 | 15 |

Mon: | | 15 | 15 | 15 | 15 |

Tue: | | 15 | 15 | 15 |

Wed: | | 15 | 15 |

Thu: | | 15 |

Fri: | |

    595

    $21 \times 15 = 315$

    $595 - 315 = 280$

    $280 \div 7 = 40$

    Saturday $= 40 + (6 \times 15) = 130$ peaches

43) $23 - 9 = 14$

    $14 - 8 = 6$

    Total length $= (7 \times 9) + (5 \times 8) + (5 \times 6) + 53$

    $= 186$ cm

44) a) $180° - (60° + 58°) = 62°$

    b) $180° - (58° + 58°) = 64°$

$228

45) J:

K:

204-(24x3)=132

3u $\square$ =204

1u-3 $\square$ =132
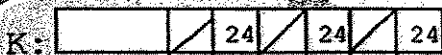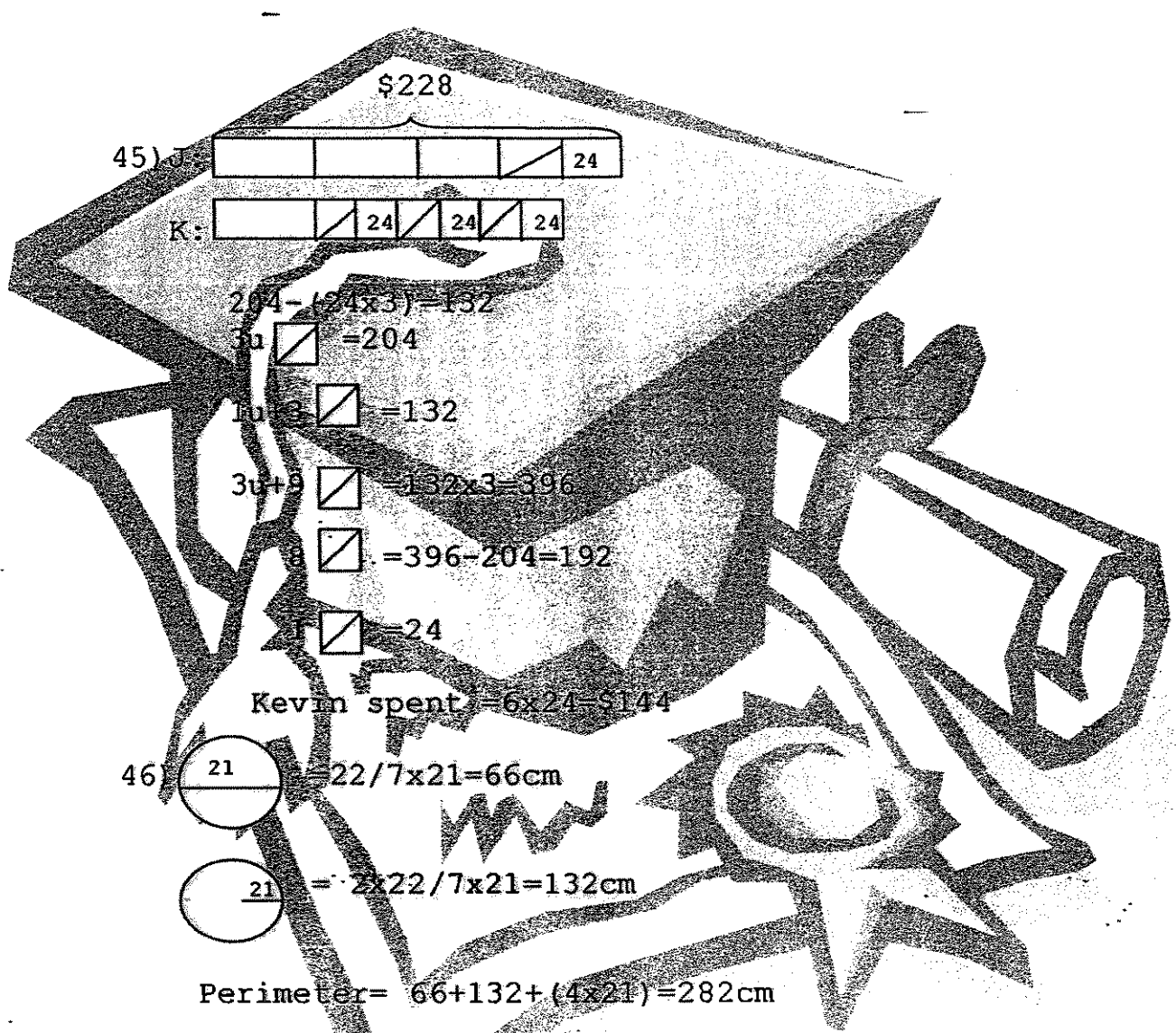
3u+3 $\square$ =132x3=396

8 $\square$ =396-204=192

1 $\square$ =24

Kevin spent =6x24=$144

46) 21 =22/7x21=66cm

21 = 2x22/7x21=132cm

Perimeter= 66+132+(4x21)=282cm

47) 1045 to 1415 =3h 30min=3½ h
64x3½ =224km
64+40=104km/h
484-224=260km
260÷104=2½h
1415+2½h=1645

48) printers:A:$50
B:=3x$50=$150
C:6x$50=$300
1 group(15x$50)+(6x$150)+(8x$300)
=$750+$900+$2400=$4050
12150÷4050=3groups
(15+6+8)x3=87 printers.

Name : _____ (   )   Index Number

Class : Primary 6 SY / C / G / SE / P

SINGAPORE CHINESE GIRLS' SCHOOL (PRIMARY)

PRELIMINARY EXAMINATION 2007

MATHEMATICS

BOOKLET A

15 Questions

20 Marks

Total Time For Booklets A and B : 2 h 15 min

INSTRUCTIONS TO CANDIDATES

Do not open this booklet until you are told to do so.

Follow all instructions carefully.

Answer all questions

Booklet A (20 marks)
Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.
For each question, four options are given. One of them is the correct answer.
Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the
Optical Answer Sheet.

1.   What is the missing number in the box?

160 058 = 100 000 + ☐ + 50 + 8

(1)   60
(2)   600
(3)   6 000
(4)   60 000

2.   Which one of the following numbers is nearest to 10?

(1)   9.01
(2)   9.91
(3)   10.01
(4)   10.091

3.   Which one of the following is the best estimate for 49.86 ÷ 97?

(1)   5.0
(2)   0.5
(3)   0.05
(4)   0.005

4.   Find the value of 28 − 12 ÷ 4 × 3 + 2 .

(1)   14
(2)   17
(3)   21
(4)   29

5.   Which one of the following is the same as 10 h 15 min?

(1)   75 min
(2)   115 min
(3)   615 min
(4)   1015 min

Page 1 of 23

6.   What is the area of the shaded triangle?

    20 cm

    12 cm

    11 cm

    16 cm
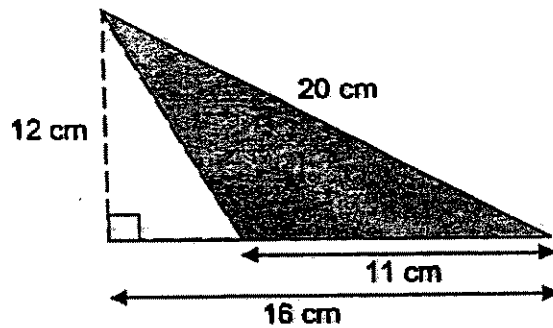
(1)   66 cm^2
(2)   96 cm^2
(3)   110 cm^2
(4)   132 cm^2

7.   The figure is made up of a big semicircle and two identical small semicircles. Find the perimeter of the shaded part of the figure. (Take $\pi = \dfrac{22}{7}$)

    28 cm
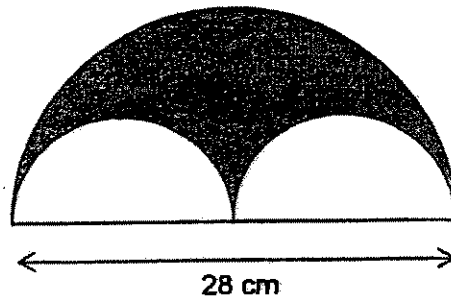
(1)   44 cm
(2)   66 cm
(3)   72 cm
(4)   88 cm

8.   Mr Tan takes 5 minutes to saw a log into 2 equal pieces.
    How long would he take to saw the same log into 12 equal pieces?

(1)   12 min
(2)   30 min
(3)   55 min
(4)   60 min

9.   Which of the following can be the net of a cube?
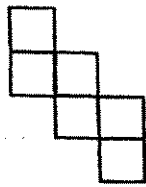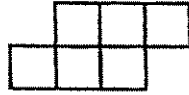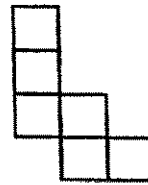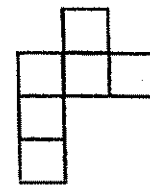
        A   **B**   **C**   **D**

    (1)   A
    (2)   B
    (3)   C
    (4)   D

10.   Mrs Tan bought 5 pens and 3 files. Each pen cost $a and each file cost $b. How much did she pay altogether?

    (1) $(a + b)$

    (2) $(a - b)$

    (3) $(3a + 5b)$

    (4) $(5a + 3b)$

11.   John bought as many 20-cent stamps as 50-cent stamps.
       He paid $7 for all the stamps.
       How many stamps did he buy altogether?

    (1)   10
    (2)   20
    (3)   30
    (4)   40

12.   Which one of the following is greater than $\frac{1}{3}$?

(1) $\frac{2}{7}$

(2) $\frac{3}{8}$

(3) $\frac{3}{11}$

(4) $\frac{4}{13}$

13.   The pie chart shows how Mrs Lim used her monthly salary.
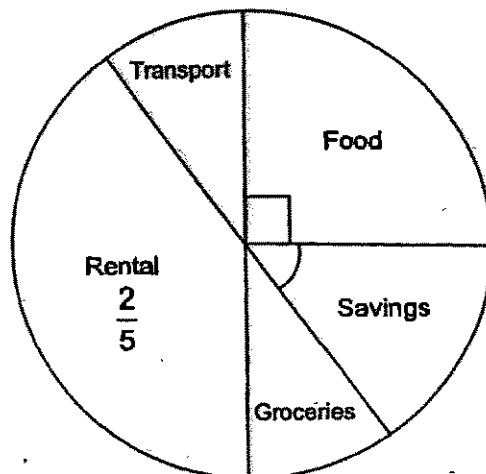
What percentage of her monthly salary did she save?

(1)   15%
(2)   20%
(3)   54%
(4)   85%

14. In the figure, not drawn to scale, ABC is an equilateral triangle, BCD is an isosceles triangle and BCE is a straight line. Find ∠ACD.
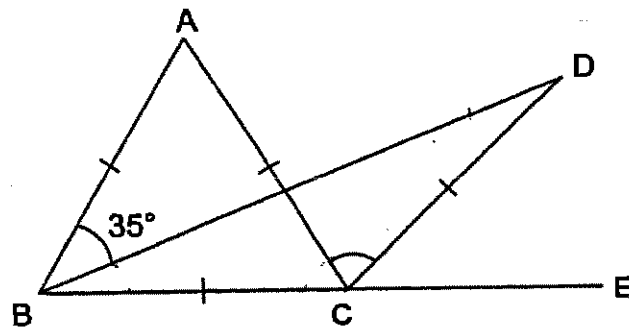
    (1)   50°
    (2)   70°
    (3)   85°
    (4)   95°

15. Meiling gave 20% of her salary to her mother. She spent 50% of the remainder and saved the rest. What percentage of her money did she save?

    (1)   30%
    (2)   40%
    (3)   50%
    (4)   60%

Name : _____ (   )   Index Number

Class : Primary 6 SY / C / G / SB / P

SINGAPORE CHINESE GIRLS' SCHOOL (PRIMARY)

PRELIMINARY EXAMINATION 2007

MATHEMATICS

BOOKLET B

33 Questions

80 Marks

Total Time For Booklets A and B : 2 h 15 min

INSTRUCTIONS TO CANDIDATES

Do not open this booklet until you are told to do so.

Follow all instructions carefully.

Answer all questions

Booklet B (80 marks)
Questions 16 to 25 carry 1 mark each. Questions 26 to 35 carry 2 marks each.
For each question, write your answer in the space provided.
Give your answers in the units stated.

Do not write
in this column

16.   A number when rounded off to the nearest thousand is 870 000.

What is the greatest possible number?

Ans: _____

17.   Write 2 tens 7 hundredths and 6 thousandths as a decimal.

Ans: _____

18.   What fraction of the ~~rectangle~~ *figure* is shaded?
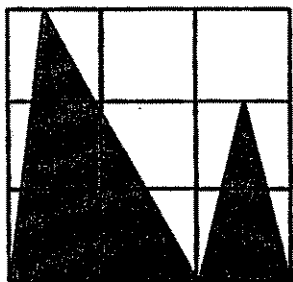
Ans: _____

19.   Express $2\frac{3}{5}$ km in metres.

Ans: _____ m

4

Page 6 of 23
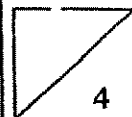
20. Look at the reading indicated on the weighing scale.

What is the mass of the cabbage?

(Give your answer in kg and g.)

Ans: _____ kg _____ g

---
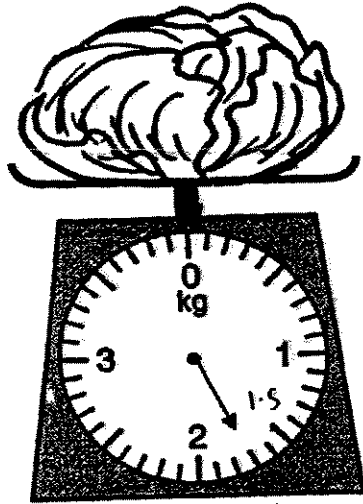
21. The sum of 8 numbers is 416. What is the average of the numbers?

Ans: _____

---

22. A muffin cost twice as much as a pancake. Jane spent $\frac{1}{4}$ of her money on

5 muffins. How many pancakes could she buy with the rest of her money?

Ans: _____

3
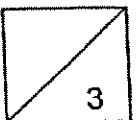
23.   A motorist travels 65 km in 30 minutes.

Express his speed in km/h.

Ans: _____ km/h

24.   Study the diagram and answer the following questions.
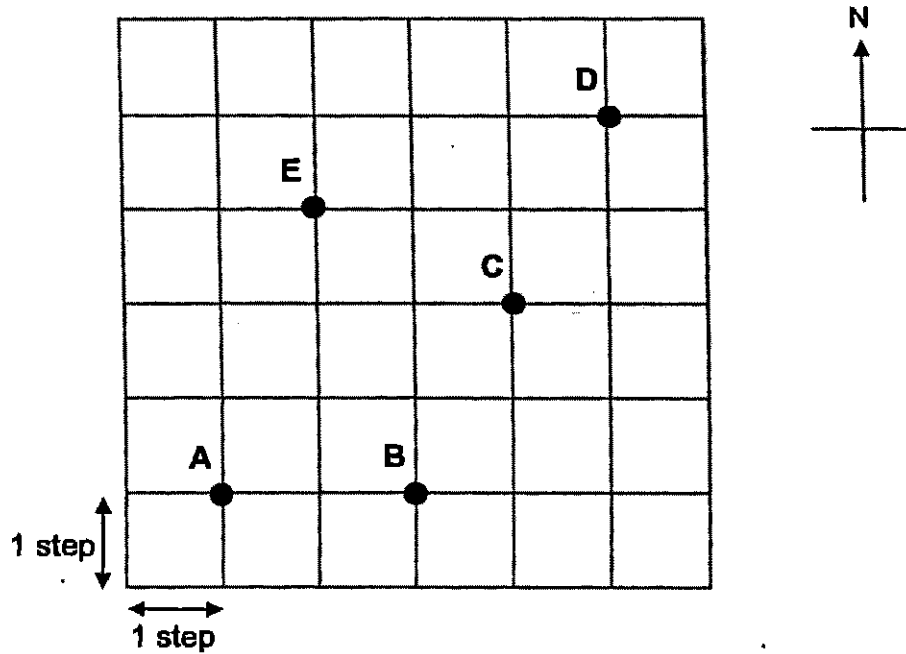
Huimin was at a certain position. She walked 3 steps due west,

2 steps due south and then 2 steps due east. She ended at Position C.

Where was her starting position?

Ans: _____

25.   Sam and Tom shared some marbles in the ratio of 3 : 4. In a game, Tom

lost half of his marbles to Sam. What was the ratio of the number of marbles

Sam had to the number of marbles Tom had after the game?

Ans: _____

3

Questions 26 to 35 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

26.   Express $2\frac{1}{2}\%$ as a decimal.

Ans: _____

---

27.   Deming bought some files for $48 at a discount of 20%.

Given the discount, he was able to buy 3 more files at the usual price.

What was the usual price of each file?

Ans: $ _____

---

28.   The figure shows a solid leaning against two walls. The solid is made up of some 1-cm cubes. Find the volume of the solid.

Ans: _____ cm^3

6
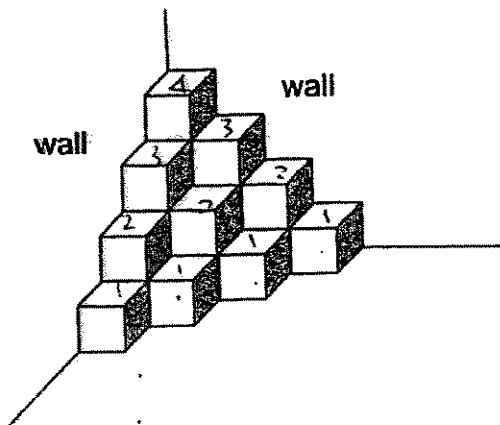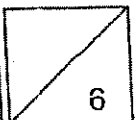
29. A rectangular tank, 40 cm long, 35 cm wide and 25 cm high, contained 21 litres of water. What is the height of the water level in the tank?

Ans: _____ cm

30. Mrs Chua had just enough money to buy 4 kg of crabs and 3 kg of prawns. However, she bought 3 kg of crabs and 4 kg of prawns and had $4.50 left. If she exchanged the 3 kg of crabs with 3 kg of prawns, how much money would she have left?

Ans:$ _____

31. The pie chart shows the amount of money donated by four Primary Six classes. The total amount collected was $500.
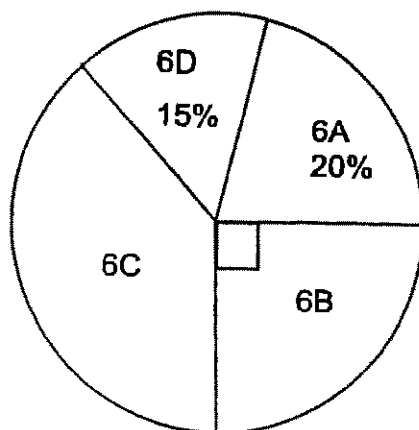
How much money was collected by Primary 6C?

Ans: $ _____

6

Page 10 of 23
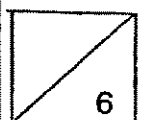
32.   In the figure, O is the centre of the circle and SP is parallel to OQ.

Find ∠x.
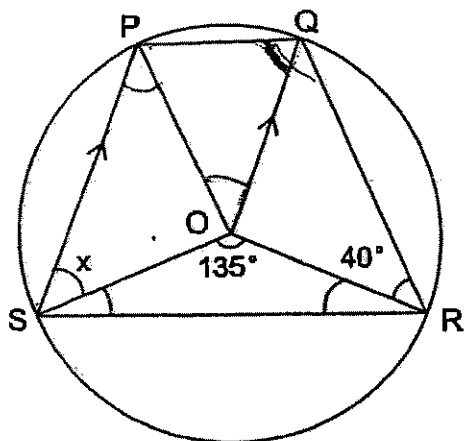
Ans: _____ °

33.   8 workers can paint a block of flats in 12 hours. At this rate, how many
workers are needed to paint the block of flats in 4 hours?

Ans: _____

4
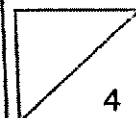
34. The ratio of the number of passengers in Train A to that in Train B is 3 : 2. When 80 passengers alighted from Train A, the ratio became 7 : 6. How many passengers remained in Train A?

Ans: _____

35. Mr. Tan had 200 apples and oranges. $\frac{1}{3}$ of the apples and $\frac{1}{4}$ of the oranges were rotten. He threw away 60 rotten fruits altogether. How many rotten oranges were there?

Ans: _____

4
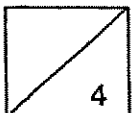
Name : _____ (   )   **Date :** _____

Class : Primary 6 SY / C / G / SE / P   **Duration : 2 h 15 min**

Write your answers to questions 36 to 48 in the spaces provided. For each question, show your working clearly in the space provided. The number of marks available is shown in brackets at the end of each question or part-question.

Do not write
In this column

36. (a)   Jane is 4k years old. Her sister is 3 years older than her.

Express their total age in terms of k.

(b)   What is the ratio of Jane's age to her sister's when k = 9 ?

(Express your answer in the simplest form.)

Ans: (a) _____ (1)

(b) _____ (2)

37.   A grocer packed 252 kg of rice into bags of 5-kg and 2-kg. He has an equal number of 5-kg bags and 2-kg bags of rice. How many bags of rice does he have in all?

Ans: _____ (3)

6
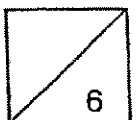
38.   The graph below shows the electricity consumption of the Chan family for 5 months.
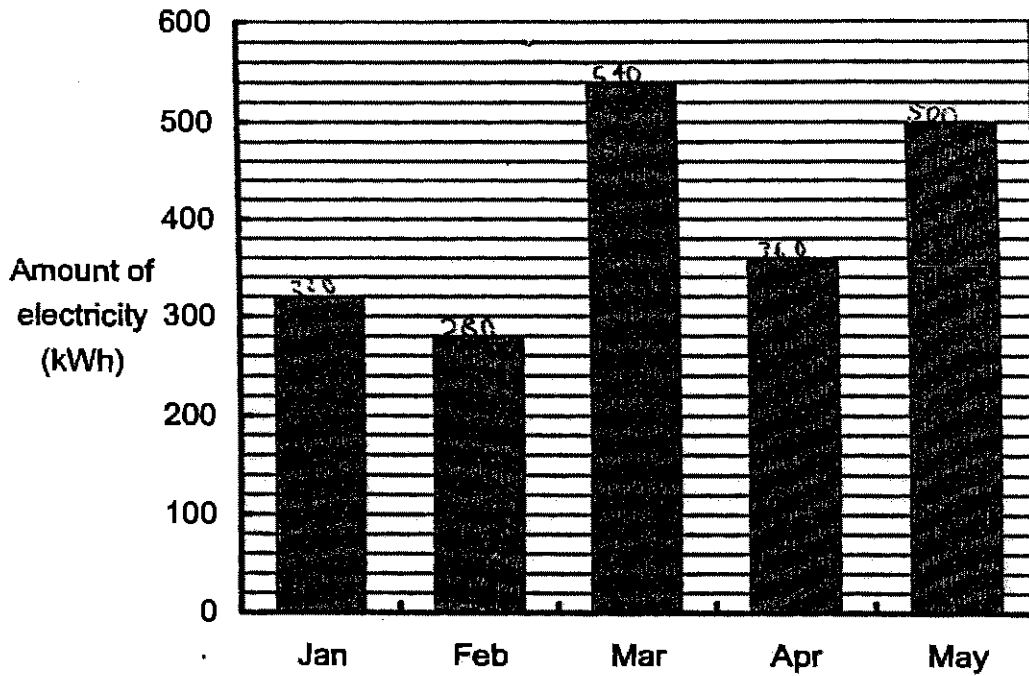
(a)   In which month was the electricity consumption $\frac{2}{3}$ that of March?

(b)   The electricity consumed is charged at the rate of 20 cents per kWh. How much did the Chan family pay for electricity from January to May?

Ans: (a) _____ (1)

(b) _____ (2)

3
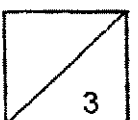
39.   (a)   In the space below, draw a parallelogram ABCD in which AB = 8 cm,

BC = 5 cm and ∠ ABC = 120°. (2)

(b)   Measure and write down the size of ∠ DAB.

Ans: (b) _____ (1)

40.   Mavis and Janice have some beads each. If Mavis gives 30 beads to Janice,
she will have 4 times as many beads as Janice. If she gives 150 beads to

Janice, she will have $1\frac{1}{2}$ times as many beads as Janice.

Find the number of beads Mavis has.

Ans:_____ (3)

6
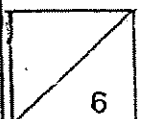
41 (a) Complete the following to form a symmetric figure about the line AB. (1)
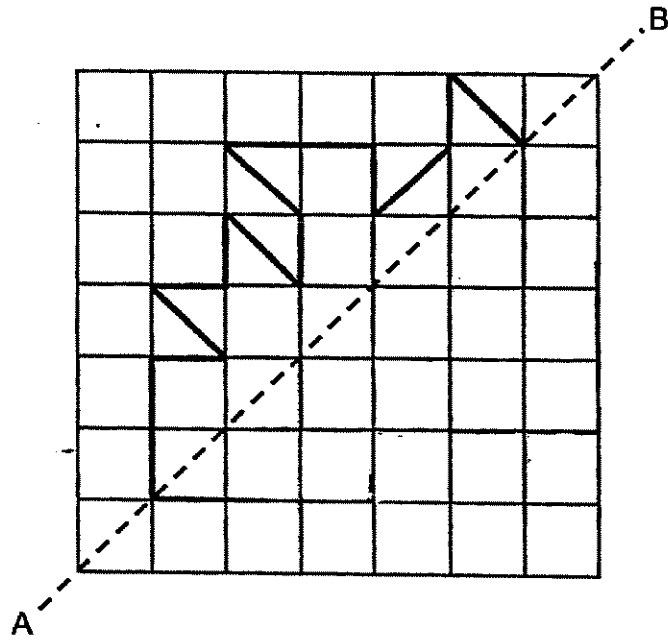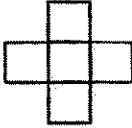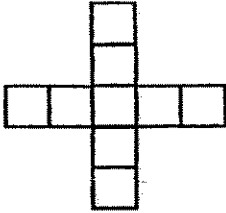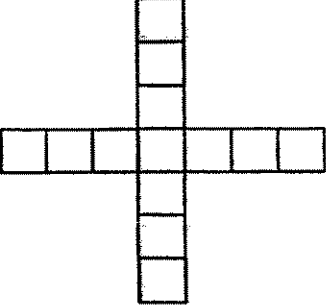
41 (b) i) Shade the unit shape that does not fit into the tessellation below.(1)

ii) Draw 2 more unit shapes to extend the tessellation in the grid provided.(1)

3
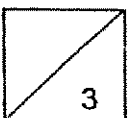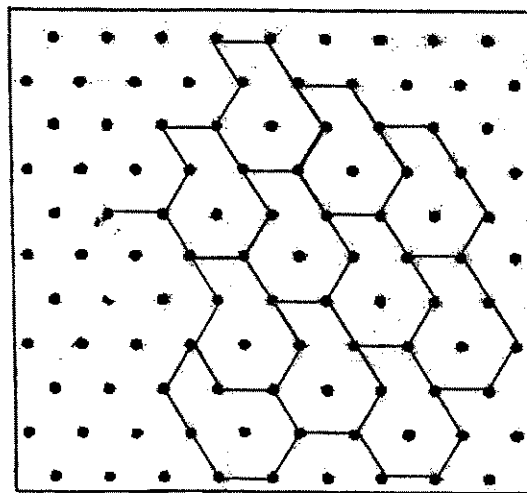
42. The shapes in the table are made up of 1-cm squares.
    Study the pattern carefully and answer the questions that follow.

Do not write
In this column

	Shape 1	Shape 2	Shape 3
Area (cm²)	5	9	13
Perimeter (cm)	12	20	28

a) What is the perimeter of Shape 15?

b) What is the area of the shape when its perimeter is 172 cm?

Ans: (a) _____ (2)

(b) _____ (2)

4
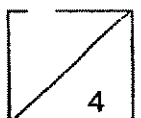
43. Alan and Bryan had $480. Alan gave $\frac{2}{5}$ of his money to Bryan. In return,

Bryan gave $\frac{3}{7}$ of his total amount to Alan. They then had the same amount

of money. How much money did Alan have at first?

Ans: _____ (4)

4

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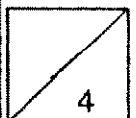
44. The figure is made up of a 3-cm square and a 7-cm square.
Find the shaded area of the figure.
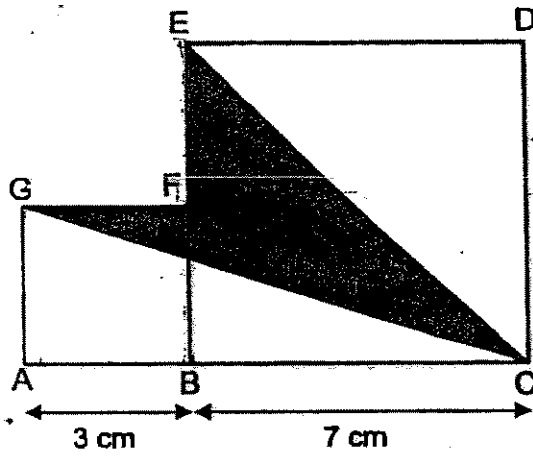
Ans: _____ (4)

45.   When Mrs Lee was 40 years old, her son was twice her daughter's age.

Mrs Lee will be twice her son's age when her daughter is 28 years old.

How old will Mrs Lee be when her daughter is 20 years old? .

Ans: _____(5)

5
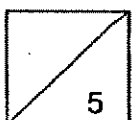
46. The figure shows a square of side 20 cm enclosing a quarter circle and two semicircles. Find the total shaded area of the figure. (Take $\pi = 3.14$)

20 cm
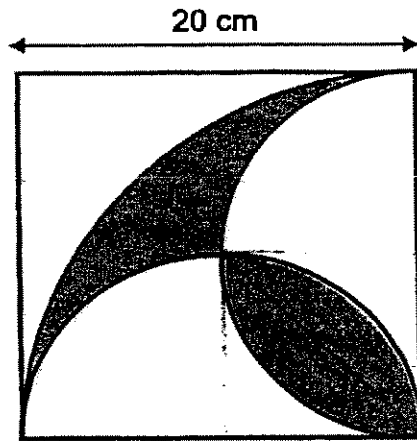
Ans: _____(5)

5
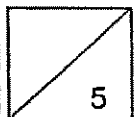
47. At 7 a.m., Car A left Town X for Town Y while Car B left Town Y for Town X. At 3 p.m., the two cars passed each other. 5 hours later, Car A reached Town Y but Car B was still 150 km away from Town X.
Find the distance between Town X and Town Y.

Ans: _____(5)

5
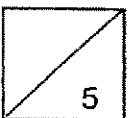
48.   At an exhibition, the number of male visitors was 500 more than the number of female visitors on the first day. On the second day, the number of male visitors decreased by 10% but the number of female visitors increased by 15%. Given that there were 1680 visitors on the second day, how many female visitors were there on the second day?
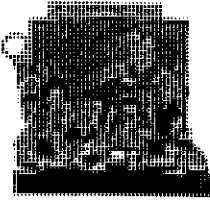
Ans: _____ (5)

5
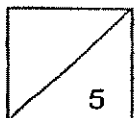
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ExamSutra 考试圣经
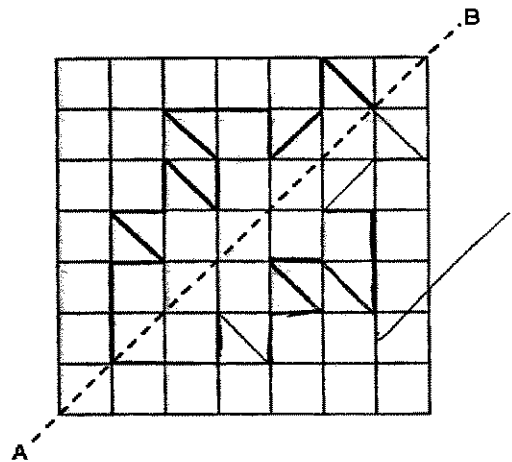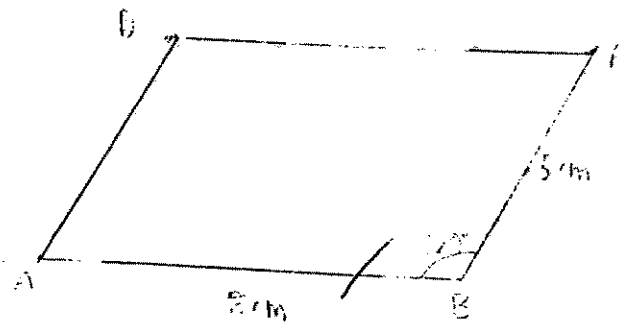## Answer Sheets
SCGS /Pri 6 SA2/2007 Maths

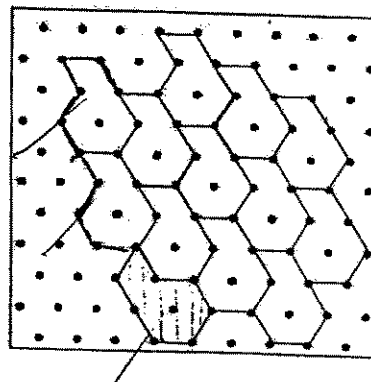|					
1)4	2)3	3)2	4)3	5)3	6)1
7)4	8)3	9)1	10)4	11)2	12)2

13)1   14)2   15)2   16)870499   17)20.076   18)$\frac{4}{9}$

19)2600m   20)1kg 700g   21)52   22)30   23)130km/h   24)D

25)5:2   26)0.025   27)$4   28)20cm^3 29) 15cm   30)$18

31)$200   32)55^0 33)24   34)280   35)20

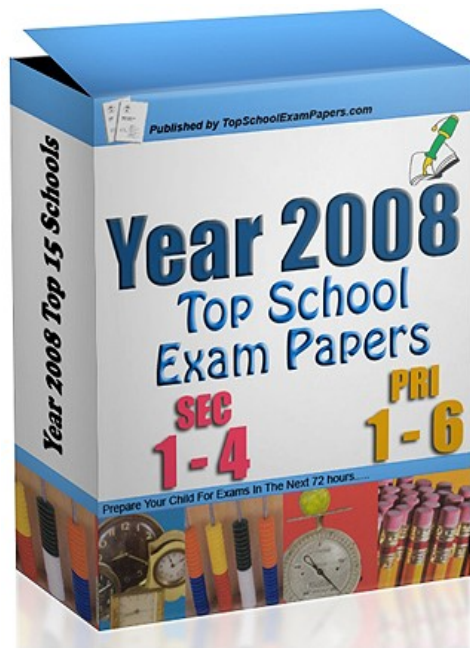36)a(8k+3)years old   36)b.12:13   37)72 bags   38)a.April   38)b.$400

39)a.   41)a.

39)b.60^0 40)510 beads   41)b.

42)a.124cm   42)b.85cm^2

43)$100   44)18.5cm^2

45)56 years old

46)114cm^2 47)400km

48)690 female visitors

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