SA1

AI TONG SCHOOL

2005

SEMESTRAL ASSESSMENT 1

PRIMARY 6

MATHEMATICS

DURATION : 2 HRS 15 MINS

DATE: 10 May 2005

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 : _____

Booklet A
Section A (25 marks)

Questions 1 to 5 carry 1 mark each.
Questions 6 to 15 carry 2 marks each.
For each question, 4 options are given. Choose the correct answer (1, 2, 3 or 4) and shade the correct oval on the OAS.

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1. The value of $\frac{1}{4} \div (\frac{3}{4} \times 16)$

   (1) $\frac{1}{48}$

   (2) 3

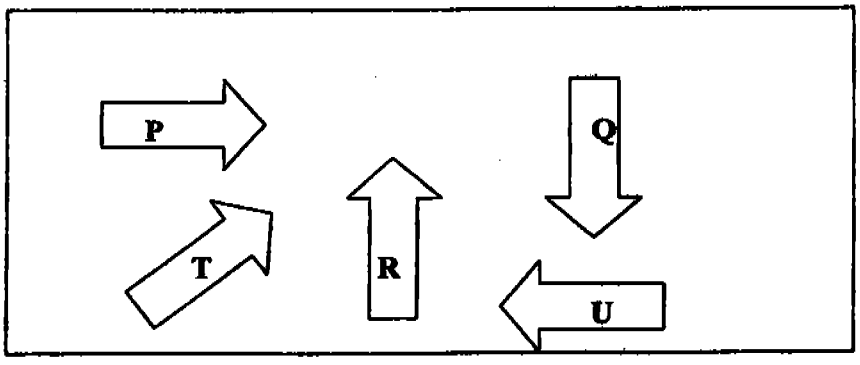
   (3) $5\frac{1}{3}$

   (4) 16

2. Express $3\frac{51}{20}$ as a decimal.

   (1) 2.55
   (2) 3.51
   (3) 5.11
   (4) 5.55

3. In the diagram below, arrow P is pointing north. Which arrow is pointing west?



   (1) Q
   (2) R
   (3) T
   (4) U

4. The ratio of the length of rope A to rope B is 8 : 5. If rope A is 2.7 cm longer than rope B, find the total length of the 2 ropes?

(1) 2.7 cm
(2) 4.5 cm
(3) 7.2 cm
(4) 11.7 cm

5. If $e = 4$ and $f = 5$, the value of $2(f + 8e)$ is

(1) 42
(2) 50
(3) 74
(4) 88

6. What is the number when it is divided by 4, has a quotient of 839 and a remainder of 2.

(1) 211.75
(2) 419.50
(3) 3 358
(4) 3 364

7. The sides of a triangle are in the ratio of 6 : 7 : 11. What fraction of the perimeter is the length of the shortest side??

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

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

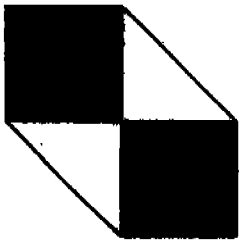
(3) $\frac{6}{11}$

(4) $\frac{6}{7}$

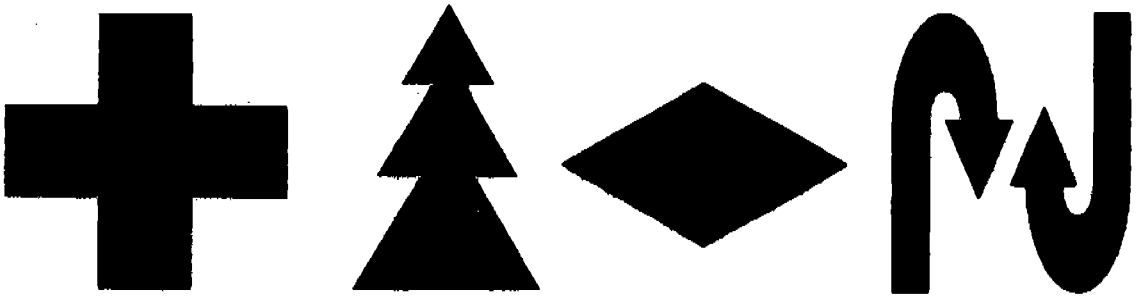
8. A sum of money was shared among Alvin, Ben and Carol. Alvin received 30% of the money, Ben received $\frac{1}{4}$ of it and Carol received the rest. If there was \$2 000, how much did Carol receive?

(1) \$900
(2) \$1 050
(3) \$1 100
(4) \$1 400

9. Benny has this symmetrical logo.



Which of these figures has the same number of axes of symmetry as Benny's logo?



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

10. The average of 3 numbers is 72. The sum of two of the numbers is $\frac{1}{6}$ of the total of all the three numbers. The third number is _____.

(1) 12
(2) 36
(3) 60
(4) 180

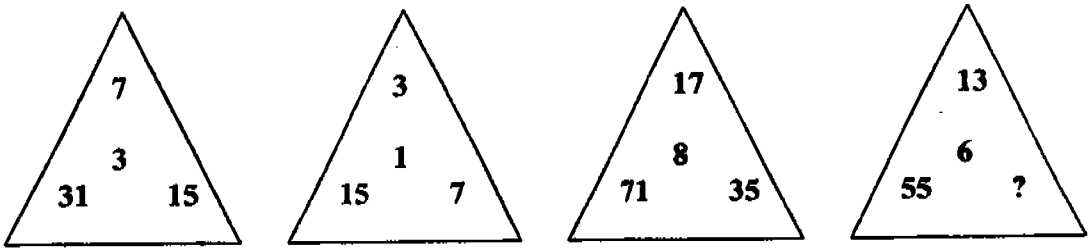
11. Mr. Lee earns $15 000 a year, he spends $250 on food, $150 on rent and $425 on transportation every month. What percentage of his earnings does he save each month?

(1) 34 %
(2) 45%
(3) 66%
(4) 94.5%

12. Donald, Eugene and Frances have stamps in the ratio 8 : 4 : 3. If Eugene has 16 stamps, what is the average number of stamps each of them have?

(1) 15
(2) 20
(3) 60
(4) 176

13. The numbers in each triangle follow the same number pattern.



What is the missing number in the last triangle?

(1) 25
(2) 27
(3) 30
(4) 33

14. Mary sold n shirts at \$ d each and made a profit of \$ p .
What was the cost price of each shirt ?

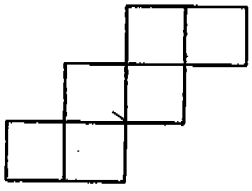
(1) \$ $\frac{nd - p}{n}$

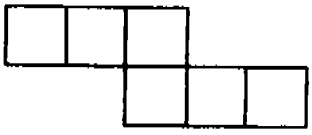
(2) \$ $\frac{d - p}{n}$

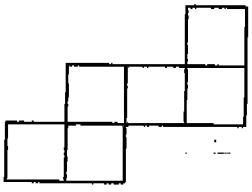
(3) \$ $\frac{nd + p}{n}$

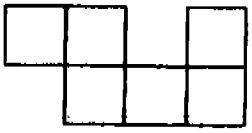
(4) \$ $\frac{d + p}{n}$

15. Below are four versions of an unfolded cube.
How many of the following can be folded to form a cube ?









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

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Booklet B
Section B (20 marks)

Each question from 16 to 35 carries 1 mark.
Write your answers in the spaces provided.

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16. _____ is 16 240 less than the sum of 15 372 and 9 728.

_____

17. Mark has $240. When his sister gives him $30, they will have the same amount of money. How much does his sister have at first?

$_____

18. Multiply 319 by 36 and round off the answer to the nearest thousand

_____

3

19. What is the product of the 12^{th} multiple of 7 and the 5^{th} multiple of 13

_____

20. A provision shop owner sold $\frac{5}{7}$ of a sack of sugar and had 18 kg of sugar left.

How many kg of sugar did he sell?

_____ kg

21. George ate $\frac{1}{6}$ of a pizza and Henry ate $\frac{1}{3}$ of it. The remainder was then shared equally among 7 girls. What fraction of the original pizza did each girl get?

_____

22. Ian is 7 years 6 months old. His cousin is $\frac{1}{3}$ his age. How old is his cousin?

_____ years old

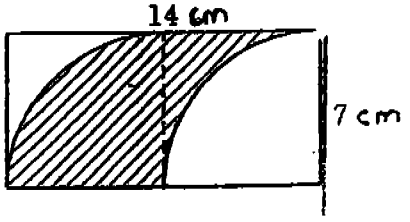
4

23. Find the value of 84.35 ÷12, correct to 2 decimal places.

24. The total cost of 5 pens and 2 erasers is $7.60. If 2 pens and an eraser cost $3.20. What is the total cost of 3 pens?

$ _____

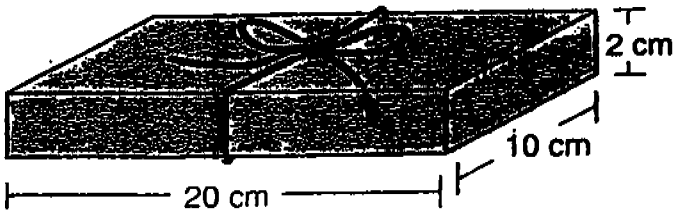
25. Find the area of the shaded part in the figure below.



_____ cm²

3

26. Minghui tied a birthday gift with coloured string as shown below.



He used 30 cm of string for the bow.
What was the total length of the string he used for tying the gift ?

_____cm

27. The average of $3\frac{1}{4}$, 2.24 and 4.38 is _____.

_____

28. The average weight of 4 boys is 41.5 kg. If another boy weighing 38.6 kg joins in, what is the average weight of the children?

_____kg

3

29. James had 184 marbles. He gave 20 of them to his brother and gave 25% of the remainder to his classmate. How many marbles had he left?

_____

30. Ken and Leon shared 870 picture cards in the ratio of 2 : 3. Leon then shared his picture cards with Mathew and Nelson in the ratio of 3 : 2 : 1. How many picture cards does Nelson have?

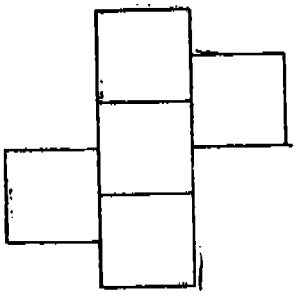
_____

31. If a: b = 3 : 8 and b: c = 24 : 7, the ratio of a : c is _____.

_____

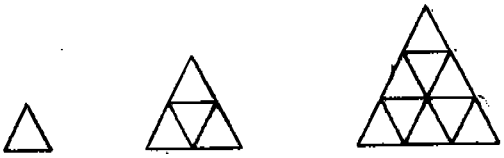
3

32. **The following figure is made up of 5 squares of side 1 cm each. What is the perimeter of the figure?**



_____ cm

33. **Here is a pattern of shapes**



Shape 1	Shape 2	Shape 3
3 lines	9 lines	18 lines

How many lines will be in shape 5 if it follows the pattern? _____

34. **Each pole stands 5m apart on a line 175m long. How many poles are needed for the entire length from end to end?**

_____

3

35. 96 pupils ordered milk. 64 pupils ordered chocolate flavoured milk and 48 pupils ordered strawberry flavoured milk. How many pupils ordered both types of milk ?

1

Name: _____ _____ _____( )

Class: Primary 6 _ _____

Section C (55 marks)

For questions 36 to 50, show your working clearly in the space below 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.

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36. Olivia bought 2 dozen boxes of apples. Each box contains a dozen apples. She threw away 48 rotten apples and repacked the rest into packs of 4 apples each. How many packs of apples were there?

Answer :_____ _____[2m]

37. A sack of rice and a packet of sugar weigh 26 kg. The packet of sugar weighs $\frac{5}{8}$ as much as the sack of rice. How much heavier is the weight of the sack of rice than the packet of sugar?

Answer :_____ _____[2m]

4

38. The usual price of a watch was $ 200. At a sale, it was sold at a discount of y %. What was the selling price?

Answer :_____ [2m]

39. Patricia had 400 rubber bands. $\frac{7}{10}$ of them were red and the rest were green.

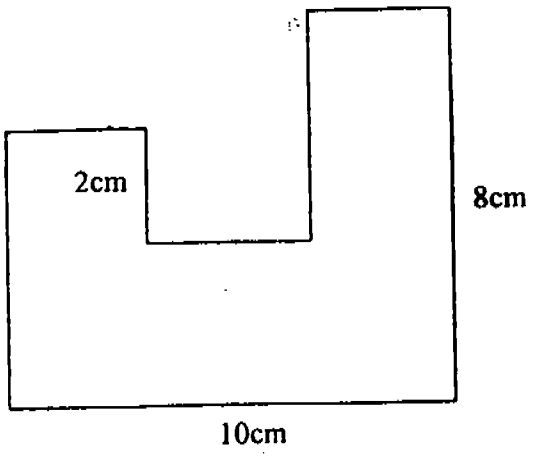
She used 130 red rubber bands and 20 green rubber bands to make a skipping rope.

What fraction of the rubber bands left was green?

Answer :_____[3m]

5

40. **Find the perimeter of the figure below.**



Answer : _ _____ [3m]

41. In a quiz, there is a total of 80 questions. For every correct answer, 4 marks were awarded. 2 marks were deducted for every wrong answer. Joe scored a total of 152 marks for the quiz. How many questions did he answer correctly?

Answer :__ _____[3m]

6

42. Luke earned a commission of 15 cents for every packet of Yakult he sold. He would be given an extra amount for every 50 packets of Yakult sold. If he sold 1 120 packets of Yakult and earned $223 altogether, how much was the extra amount of money he earned for every 50 packets of Yakult sold?

Answer : _____ [4m]

43. Triangle ABC is an isosceles triangle.
Angle A is 50° .
Find the three possible values for Angle B.
Illustrate your working with three different diagrams.

Answer : _____ [4m]

8

44. Uncle Seng bought some fruits. $\frac{1}{3}$ of the fruits were apples, $\frac{1}{9}$ of them were mangoes and the rest were oranges. The prices of the fruits are as shown.

Apples	20 cents each
Mangoes	70 cents each
Oranges	30 cents each

Uncle Seng spent $ 15.60 on the apples and mangoes. How much did he spend on the oranges?

Answer : _____ [4m]

4

39

45. Ming and Ray bought some pens and notebooks. Ming spent $ 23.20 on 6 pens and 7 notebooks. Ray spent $ 23.70 on 3 pens and 9 notebooks.

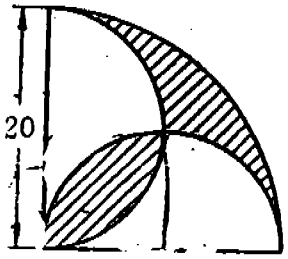
(a) What is the cost of a notebook?
(b) What is the cost of a pen?

Answer : (a)_____ [2m]

(b)_____ [2m]

4

46. The figure below shows a quadrant of radius 20 cm, with two semi-circles inside. Find the area of the shaded part.
Take $\pi = 3.14$



Answer : _____ [4m]

4

47. Kelly spent $84 on pens, mechanical pencils and correction tapes in the ratio of 4 : 5 : 3. Pens were sold at 3 for $1. The number of mechanical pencils she bought was $\frac{1}{6}$ the number of pens. The number of correction tapes was $\frac{5}{7}$ that of the mechanical pencils.

a) How many correction tapes did she buy altogether?

b) How many mechanical pencils could she buy with $175?

Answer :(a) _____ [3m]

(b) _____ [2m]

5

48. 60% of the admission tickets to the show on "Disney on Ice" are reserved for children. The number of admission tickets for men to women is in the ratio 5 : 7. During the school holidays, the number of admission tickets is increased by 20%. The number of admission tickets reserved for children has increased to 1 080.

a) How many admission tickets are reserved for adults during the school holidays?

b) How many admission tickets are reserved for men only before the school holidays?

Answer : (a)__ _____ [3m]

(b)__ _____ [2m]

5

49. Amy's monthly salary was $3 000. Every month, she would give 20% of her salary to her mother and pay $800 for her part-time course. She would also spend 40% of her remaining money on clothes and save the rest.

a) How much did she save per month?

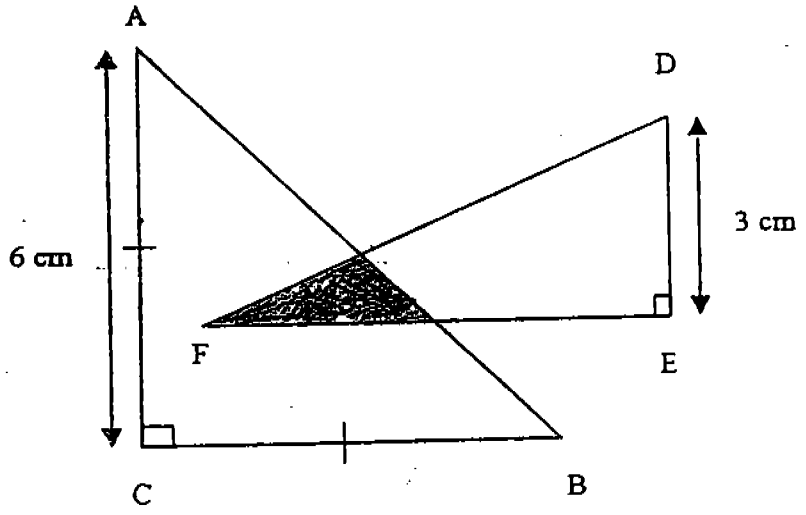
b) What percentage of her monthly salary did she use to pay for her part-time course and to buy clothes?

Answer : (a)_____ [3m]

(b)_____[2m]

5

50. The area of the shaded part is $\frac{1}{6}$ of the area of triangle ABC but $\frac{2}{9}$ of the area of triangle DEF. What is the length of FE?



Answer : _____ [5m]

5

~~ End of Paper ~~

♠Please check your work carefully♠

SA1

AI TONG SCHOOL
2005 SEMESTRAL ASSESSMENT 1
PRIMARY 6
MATHEMATICS

1) 1

2) 4

3) 2

4) 4

5) 3

6) 3

7) 1

8) 1

9) 3

10) 4

11) 1

12) 2

13) 2

14) 1

15) 3

16) 8860

17) 300

18) 11000

19) 5460

20) 45

21) 1/14

22) 2 1/2

23) 7.03

24) 3.60

25) 49

26) 54

27) 3.29

28) 40.92

29) 123

30) 87

31) 9 : 7

32) 12)

33) 45

34) 36

35) 16

36) 60

37) 6 kg

38) $ (200 - 2y)

39) 2/5

40) 40 cm

41) 52

42) $ 2.50

43) 50°, 80°, 65°

44) $ 18

45) a) $ 2.20 b) $ 1.30

46) 114 cm^2

47) a) 10 b) 70

48) a) 720 b) 250

49) a) $ 960 b) 48%

50) 9 cm