

SAT



RAFFLES GIRLS' PRIMARY SCHOOL

SEMESTRAL ASSESSMENT (1) 2004

Your Score Out of 100 marks		
	Class	Level
Highest score		
Average score		
Parent's Signature		

Name : _____ Class: P5 _____ Index No: _____

11 May 2004 MATHEMATICS ATT: 2 h 15 min

Booklet A (25 marks)

Questions 1 to 5 carry 1 mark each. Questions 6 to 15 carry 2 marks each.

For each question, four options are given. One of them is the correct answer.

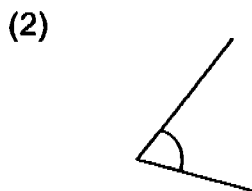
Make your choice (1, 2, 3 or 4) and shade the correct oval on the Optical Answer Sheet.

1. $900\ 304 = \boxed{} + 300 + 4$

What is the missing number in the box?

- (1) 900
- (2) 9 000
- (3) 90 000
- (4) 900 000

2. The angles below are not drawn to scale. Which one of the following measures about 72°?



3. $\frac{5}{6} \times 4$ is the same as _____.

(1) $\frac{5}{6} \times \frac{5}{6} \times \frac{5}{6} \times \frac{5}{6}$

(2) $\frac{5}{6} + \frac{5}{6} + \frac{5}{6} + \frac{5}{6}$

(3) $\frac{5 \times 4}{6 \times 4}$

(4) $\frac{5}{6 \times 4}$

4. $\frac{1}{4}$ of 2 kg is _____ g.

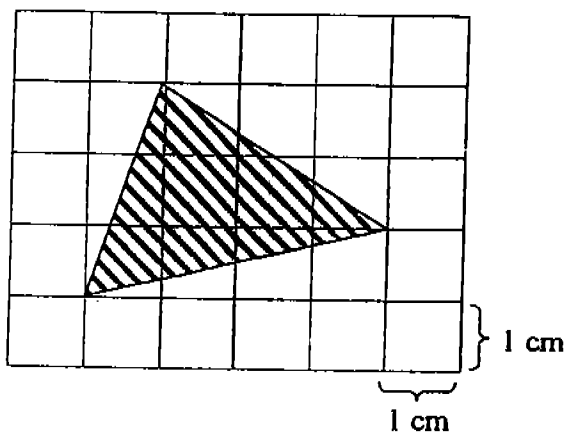
(1) 50

(2) 125

(3) 250

(4) 500

5. What is the area of the shaded triangle?



(1) 4.5 cm^2

(2) 5.5 cm^2

(3) 7.0 cm^2

(4) 7.5 cm^2

6. The best estimate for 7195×86 is _____.

(1) 7000×80

(2) 8000×80

(3) 7000×90

(4) 8000×90

7. Express 50 kg 50 g in kilograms.

(1) 50 kg

(2) 50.5 kg

(3) 50.05 kg

(4) 50.005 kg

8. Divide 80.34 by 5. Round off the answer to 1 decimal place.

(1) 16.0

(2) 16.1

(3) 16.6

(4) 16.7

9. A box contains 15 pencils. 9 of them are red and the rest are blue.
The ratio of the number of blue pencils to that of red pencils is

_____.

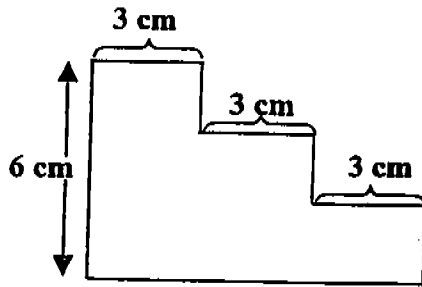
(1) 2 : 3

(2) 3 : 2

(3) 3 : 5

(4) 5 : 3

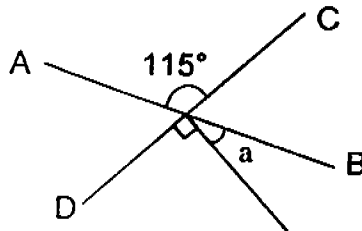
10. Find the perimeter of the figure below.



- (1) 15 cm
(2) 21 cm
(3) 24 cm
(4) 30 cm
11. The value of $30 - (12 + 8) \div 5 \times 2$ is _____.

- (1) 1
(2) 22
(3) 28
(4) 4

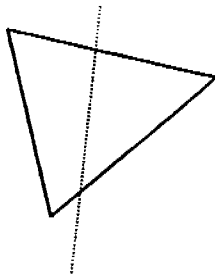
12. The diagram below is not drawn to scale. AB and CD are straight lines. The value of $\angle a$ is _____.



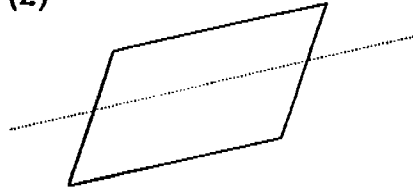
- (1) 25°
(2) 35°
(3) 45°
(4) 65°

13. Which one of the following figures has a line of symmetry drawn correctly?

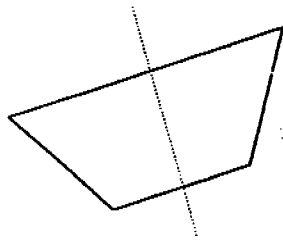
(1)



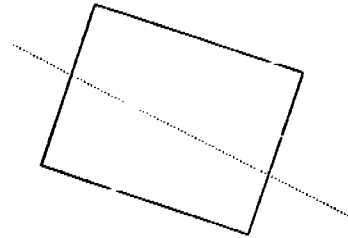
(2)



(3)



(4)



14. Simplify: $\frac{5}{10} + \frac{15}{100} + \frac{25}{1000}$

(1) $\frac{9}{40}$

(2) $\frac{27}{40}$

(3) $\frac{9}{200}$

(4) $\frac{13}{200}$

15. Aminah, Betty and Chandran shared some stickers in the ratio 9 : 5 : 2. If Aminah received 36 more stickers than Betty, how many stickers were there at first?

(1) 64

(2) 81

(3) 135

(4) 144

Name: _____ Class: P5 ____ Index No: _____

Booklet B1 (20 marks)

Questions 16 to 35 carry 1 mark each.

Write your answers in the spaces provided.

Give your answers in the units stated.

16. A sum of \$ 38 602 was raised for charity. Express this amount to the nearest thousand dollars.

Ans: \$ _____

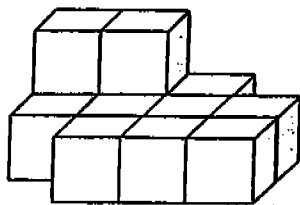
17. John cut his rope into two pieces. One piece measured 1 m 85 cm and the other 30 cm. Find the length of the rope John had at first.

Ans: _____ m _____ cm

18. How many hours and minutes are there between 11.35 a.m. and 2.20 p.m. on the same day?

Ans: _____ h _____ min

19. The solid below is made up of 1-cm cubes. Find the volume of the solid.



Ans: _____ cm³

20. William is facing Northwest. He makes three 45° turns in the clockwise direction. Which direction will he be facing now?

Ans: _____

21. Simplify: $\frac{4}{5} + \frac{5}{6}$

Ans: _____

22. $\frac{2}{5} \times 40 = \square \times 80$

The missing number in the box is _____.

(Express your answer in its simplest form.)

Ans: _____

23. In the number 390.481, which digit is in the hundredths place?

Ans: _____

24. $4 : 9 = 20 : \square$

Find the missing value in the box.

Ans: _____

25. The ratio of Helen's weight to Susan's weight is 3 : 2. If Susan weighs 36 kg, what is their total weight?

Ans: _____ kg

26. Study the given set of numbers. Find the difference between the largest and the smallest numbers.

75 306 , 76 053 , 76 350 , 76 305

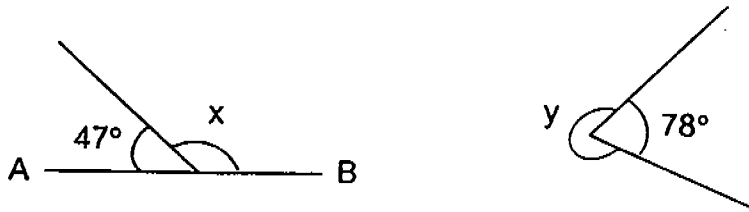
Ans: _____

27. How many 2 000s are there in a million?

Ans: _____

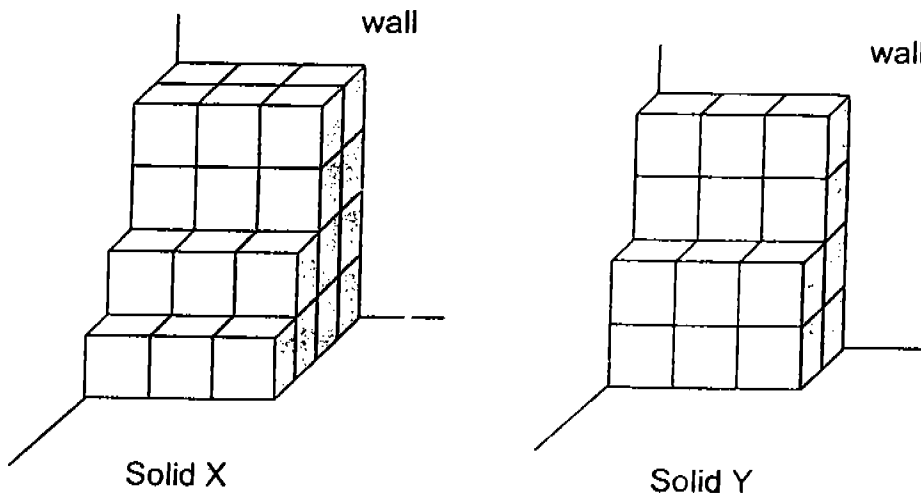
28. The figures below are not drawn to scale. AB is a straight line.

Find the sum of $\angle x$ and $\angle y$.



Ans: _____

29. How many cubes must be removed from Solid X so that it is exactly like Solid Y?



Ans: _____ cubes

30. What is the value of $3\frac{5}{8} - 1\frac{7}{10}$?

Express your answer in its simplest form.

Ans: _____

31. Simplify: $\frac{5}{6} \div 25$

Ans: _____

32. Express 1.84 as a fraction in its simplest form.

Ans: _____

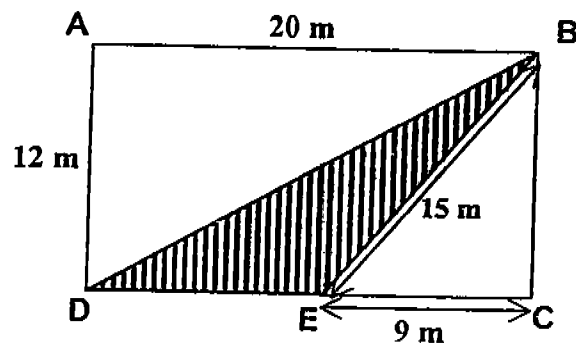
33. Given that $A : B = 2 : 3$ and $B : C = 5 : 6$, find $A : C$.
(Express your answer in its simplest form.)

Ans: _____

34. A sum of money is to be shared between Huifen and Meihua in the ratio 3 : 7.
If Huifen receives \$42, how much will Meihua receive ?

Ans : \$ _____

35. ABCD is a rectangle. Find the area of the shaded triangle.



Ans: _____ m²

Name: _____ Class: P5 ___ Index No: _____

Booklet B2 (55 marks)

For questions 36 to 50, 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 the brackets [] at the end of each question or part question.

36. What is the sum of all the multiples of 4 between 20 and 40?

Ans: _____ [2]

37. Arrange the fractions in the box in descending order.

$\frac{8}{9}$, $1\frac{1}{12}$, $\frac{7}{6}$

Ans: _____ [2]

38. Amy has 25 stamps more than Betty. Jolene has 10 stamps fewer than Betty. Amy and Jolene have a total of 145 stamps. How many stamps do the three girls have altogether?

Ans: _____ [3]

39. Sam had 15 printers and twice as many television sets. He sold all the printers at \$600 each and all the television sets at \$435 each. How much did he collect altogether?

Ans: _____ [3]

40. Alvin has 75 toy cars. He gives $\frac{7}{25}$ of them to Alan. Alan then gives 6 of what Alvin has given him to Mingsheng. How many toy cars does Alan have now ?

Ans: _____ [3]

41. 2 mangoes at Giant Supermarket cost as much as 3 apples. Mrs Lim paid \$18 for 6 mangoes and 3 apples. Find the cost of 5 such mangoes.

Ans: _____ [3]

42. Tina was writing out the numbers from 1 to 100 on the board. She stopped to take a rest after having written 75 digits. What was the last number that she wrote?

Ans: _____ [3]

43. At a Christmas party, the ratio of the number of adults to the number of children is 7 : 8 . The number of boys is three times as many as the number of girls. There are 8 more boys than girls at the party. How many adults are there ?

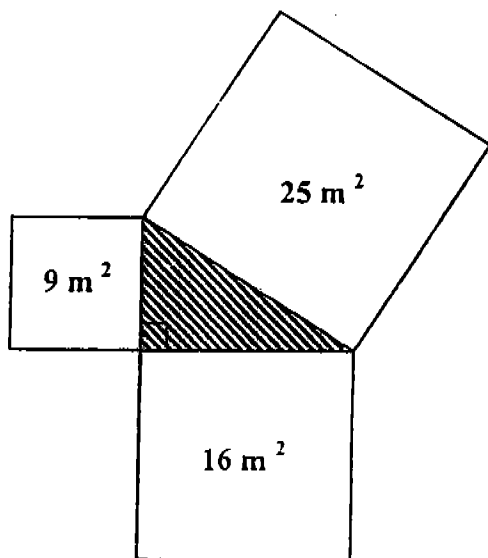
Ans: _____ [3]

Name: _____ Class: P5 ____ Index No: _____

44. Yesterday, John, Rafi and Dollah shared some lollipops in the ratio 3 : 4 : 5 respectively. They also shared some chocolates in the ratio 9 : 10 : 11 respectively. If John had the same number of lollipops as chocolates, and Rafi had 6 more lollipops than chocolates, what was the total number of lollipops and chocolates that were shared ?

Ans: _____ [4]

45. The figure is made up of a triangle and 3 squares with their given areas.
- (a) Find the area of the shaded triangle.
- (b) What fraction of the figure is shaded?
(Express your answer in its simplest form.)



Ans: (a) _____ [2]

(b) _____ [2]

46. Dolly spent \$ 70 on some small and big durians. She paid \$10 for 3 small durians and \$ 6 for each big one. She paid \$ 10 more for the small durians than the big ones.

- (a) How many small durians did Dolly buy?
- (b) If she had bought the same number of big durians as small ones, how much more money would she have spent?

Ans: (a) _____ [3]

(b) _____ [2]

47. A tank contains 4 identical cubes of sides 5 cm. John pours some water into the tank such that the volume of the 4 cubes is $\frac{2}{9}$ the volume of the water in the tank.

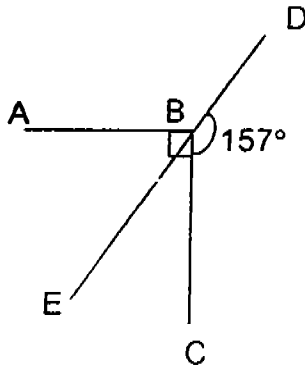
- (a) Find the volume of the 4 cubes.
- (b) Find the volume of the water in the tank.

(Express your answer in litres and in its simplest form.)

Ans: (a) _____ [2]

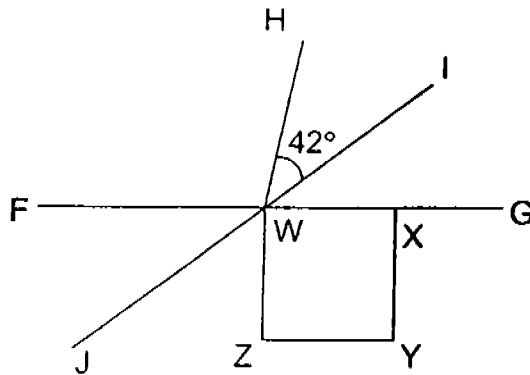
(b) _____ [3]

48. (a) The figure below is not drawn to scale. DE is a straight line. Find $\angle ABE$.



Ans: _____ [2]

- (b) The figure below is not drawn to scale. FG and IJ are straight lines and WXYZ is a square. If $\angle FWH$ is twice $\angle IWG$, find $\angle JWZ$.



Ans: _____ [3]

49. There are 32 more nurses than doctors at a hospital. $\frac{2}{5}$ of the doctors and $\frac{1}{9}$ of the nurses are males. The number of male doctors is twice the number of male nurses.

- (a) Express in its simplest form, the number of female doctors as a fraction of the total number of nurses and doctors in the hospital.
- (b) How many more female nurses than male nurses were there ?

Ans: (a) _____ [3]

(b) _____ [2]

50. Mike sold 55.6 kg of beef in the first week and 17.08 kg of beef less in the second week than in the first week. In the third week, he sold thrice the amount of beef that he sold in the first 2 weeks.

(a) How much beef did Mike sell in the third week?

(Round off your answer to the nearest kilogram.)

(b) If Mike bought the beef at \$2 per kg and sold it at \$5 per kg, how much money did he make in the first week?

Ans: (a) _____ [3]

(b) _____ [2]

-- THE END--

Setters: Ms Tan Cheo Tee

Mdm Ong Poh Leng

Mdm Ho Sheen Yee

Raffles Girls' Primary School SA 1 2004 - Mathematics

Booklet A

1) 4 $900304 - 300 - 4 = 900000$

2) 2

3) 2

4) 4 $\frac{1}{4} \times 2000 = 500$

5) 2 Around 5 shaded units $\Rightarrow 5.5 \text{ cm}^2$

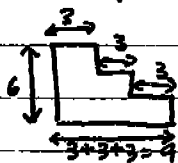
6) 3 $7195 \approx 7000$ (nearest thousand); $86 \approx 90$ (nearest tens)

7) 3 $50\text{g} = 0.05 \text{ kg} \therefore 50 \text{ kg } 50\text{g} = 50.05 \text{ kg}$

8) 2 $80.34 \div 5 = 16.068 \approx 16.1$ (to 1 decimal place)

9) 1 No. of blue pencils = $15 - 9 = 6 \therefore \text{Blue} : \text{red} = 6 : 9 = 2 : 3$

10) 4



Total perimeter = $6 + 9 + 6 + 9 = 30 \text{ cm}$

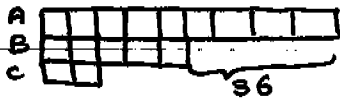
11) 2 $30 - (12 + 8) \div 5 \times 2 = 30 - [20 \div 5 \times 2] = 30 - 8 = 22$

12) 1 $\angle AXC = 115^\circ = \angle DXB$ (opp. \angle s due to straight lines AB and CD)
 $\therefore \angle a = 115^\circ - 90^\circ = 25^\circ$

13) 3

14) 2

15) 4



4 units $\rightarrow 36$

16 units $\rightarrow 36 \times 4 = 144$

Booklet B1

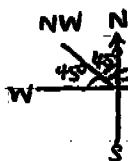
16) \$ 39000

17) Total length = $185 \text{ cm} + 30 \text{ cm} = 215 \text{ cm} = 2 \text{ m } 15 \text{ cm}$

18) 2 h 45 min

19) Volume = $1 \times 1 \times 12 = 12 \text{ cm}^3$

20)

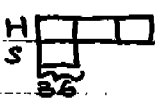


\therefore facing East now ($3 \times 45^\circ = 135^\circ$)

21) $\frac{4}{5} + \frac{5}{6} = \frac{24}{30} + \frac{25}{30} = \frac{49}{30} = 1\frac{19}{30}$

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

24) 45

25)  1 unit \rightarrow 36 kg
4 units \rightarrow $36 \times 4 = 144$ kg *

26) $76350 - 75306 = 1044$ *

27) 500

28) $\angle x = 180^\circ - 47^\circ = 133^\circ$

$\angle y = 360^\circ - 78^\circ = 282^\circ$

Sum of $\angle x$ and $\angle y = 133^\circ + 282^\circ = 415^\circ$

29) Solid X = 33 cubes, Solid Y = 18 cubes

No. of cubes removed = $33 - 18 = 15$ cubes

30) $1\frac{37}{40}$

31) $\frac{1}{30}$

32) $1\frac{21}{25}$

33) 5 : 9

34) Huifen : 3 units \rightarrow \$42

Meihua : 7 units \rightarrow $\frac{42}{3} \times 7 = \98 *

35) Shaded triangle = $\frac{1}{2} \times 12 \times (20 - 9) = 66 \text{ m}^2$ *

Booklet B2

36) multiples = 20, 24, 28, 32, 36, 40

Sum of all the multiples = $24 + 28 + 32 + 36 = 60 + 60 = 120$ *

37) $\frac{8}{9}$, $1\frac{1}{2} = \frac{13}{12}$, $\frac{7}{6} = \frac{14}{12}$

descending order : $\frac{7}{6}$, $1\frac{1}{2}$, $\frac{8}{9}$ *

38) 

Total shaded units add up to 145 stamps (A + J)

\therefore No. of stamps Jolene has = $(145 - 25 - 10) \div 2 = 55$ stamps

Total no. of stamps = $55 + (55 + 10) + (55 + 10 + 25) = 210$ *

39) No. of TV sets = $15 \times 2 = 30$

Money collected = $15 \times 600 + 435 \times 30 = \22050 *

40) No. of toy cars Alan received = $\frac{7}{25} \times 75 = 21$

No. of toy cars Alan have = $21 - 6 = 15$ *

41) $6 \div 2 = 3$ (6 mangoes \rightarrow 3 units) ; 3 apples \rightarrow 1 units : Total 4 units
4 units \rightarrow \$18 \therefore 1 unit \rightarrow $\frac{18}{4} = \$4.5$ (cost of 2 mangoes)

\therefore 5 mangoes \rightarrow $\frac{4.5}{2} \times 5 = \11.25 *

42) 1 to 9 = 9 digits, from 10 onwards = 2 digits $\therefore 75 - 9 = 66$ digits
numbers written = $\frac{66}{2} = 33$ numbers starting from 10 \therefore last no. = 41 *

43) A : C, G : B
= 7 : 8 = 1 : 3 = 2 : 6

2 units + 6 units = 8 units

6 units - 2 units = 4 units

4 units \rightarrow 8 \therefore 7 units \rightarrow $\frac{8}{4} \times 7 = 14$ *



2 units \rightarrow 6, 66 units \rightarrow $\frac{6}{2} \times 66 = 198$ *

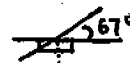
45) (a) Area of shaded $\Delta = \frac{1}{2} \times 3 \times 4 = 6 \text{ m}^2$ (b) $\frac{6}{9+25+16} = \frac{2}{38}$ *

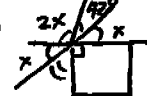


46) (a) money paid for small durians = $\frac{70-10}{2} = \$30$ \therefore no. of small durians bought = $\frac{30}{10} \times 3 = 9$ *

(b) 9 big durians = $9 \times 6 = \$54$ \therefore Extra money = $54 + 30 - 70 = \$14$ *

47) (a) Vol. of 4 cubes = $5 \times 5 \times 5 \times 4 = 500 \text{ cm}^3$ (b) Vol. of water = $\frac{500}{4} \times 9 = 1125 \text{ cm}^3$ *

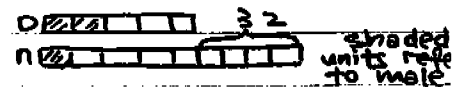
48) (a) $\angle ABE = 67^\circ$  (opp \angle s on 2 straight lines)

(b)  $2x + x + 42^\circ = 180^\circ$ $\therefore x = 46^\circ$

$\angle JWZ = 90^\circ - x = 90^\circ - 46^\circ = 44^\circ$

49) (a) 4 units \rightarrow 32, 3 units \rightarrow $\frac{32}{4} \times 3 = 24$ female doctors, 14 units \rightarrow 112 nurses + doctor
 \therefore fraction = $\frac{24}{112} = \frac{3}{14}$ *

(b) 7 units \rightarrow 56 more female nurses than male nurses *



50) (a) Beef sold in 3rd wk = $(55.6 + 55.6) \times 3 = 333.6 \approx 334$ kg *

(b) Money made = $(55.6 \times 5) - (55.6 \times 2) = \166.80 *

