

S1A2



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 PRIMARY 6

COMBINED PRELIMINARY EXAMINATION

TAO NAN · AI TONG · CHONGFU · NAN CHIAU · KONG HWA

2005

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.

School : \_\_\_\_\_

Name : \_\_\_\_\_

Class : \_\_\_\_\_

Date : 13 September 2005

<b>TOTAL</b>	25
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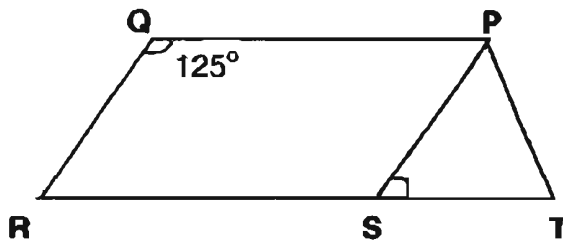
**Section A ( 25 marks )**

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

1 The diameter of a basketball is about \_\_\_\_\_ cm.

- (1) 50
- (2) 22
- (3) 40
- (4) 10

2 PQRS is a parallelogram. RST is a straight line. Find  $\angle PST$ .

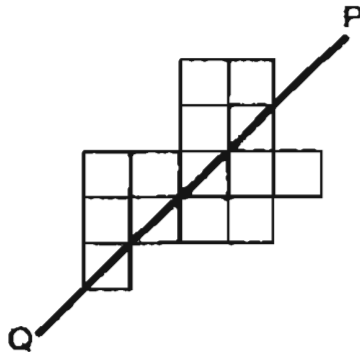


- (1)  $30^\circ$
- (2)  $55^\circ$
- (3)  $60^\circ$
- (4)  $125^\circ$

3 A tap can fill a container in 6 minutes. Two such taps are turned on at the same time. They can fill the same container in \_\_\_\_\_ minutes.

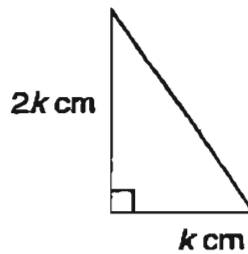
- (1) 6
- (2) 2
- (3) 3
- (4) 12

- 4 What is the smallest number of squares that must be added so that line PQ becomes a line of symmetry?



- (1) 5  
 (2) 2  
 (3) 3  
 (4) 4

- 5 The figure below shows a right-angled triangle. Express its area in terms of  $k$  in the simplest form.



- (1)  $3k \text{ cm}^2$   
 (2)  $3k^2 \text{ cm}^2$   
 (3)  $k^2 \text{ cm}^2$   
 (4)  $2k^2 \text{ cm}^2$

- 6 A rectangular tank measuring 30cm by 20cm by 50cm was completely filled with water. When a stone was placed into the tank, 10% of the water overflowed. The stone was then removed. What was the height of the water left in the tank?

- (1) 5 cm  
 (2) 10 cm  
 (3) 40 cm  
 (4) 45 cm

Use the pie chart below to answer questions 7 and 8.

The pie chart shows the reading preferences of a class of 36 children.

The ratio of the number of children who like fairy tales to those who like ghost stories is 1 : 6.



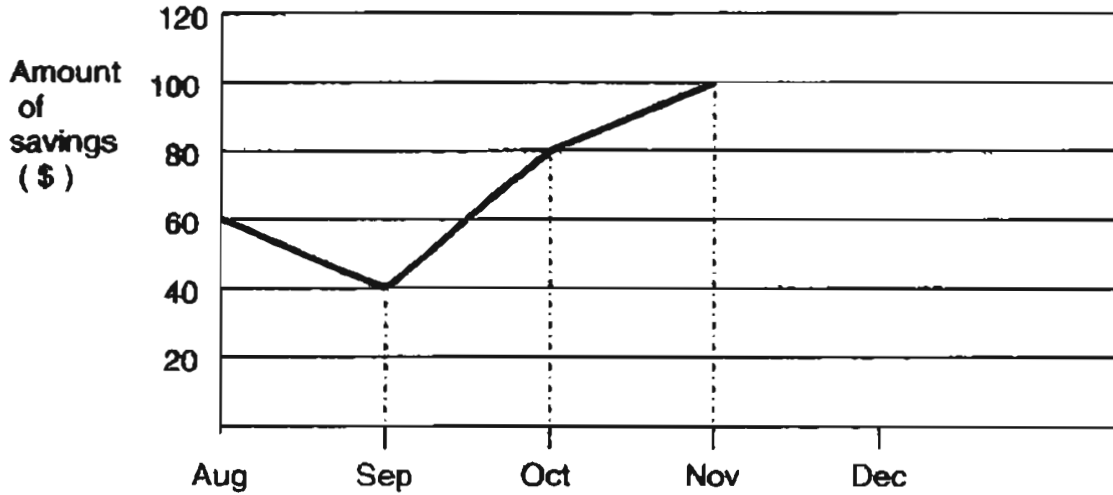
7 What fraction of the total number of children like fairy tales?

- (1)  $\frac{1}{3}$
- (2)  $\frac{1}{6}$
- (3)  $\frac{1}{8}$
- (4)  $\frac{1}{12}$

8 How many children like reading books about adventures?

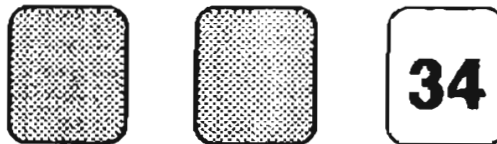
- (1) 6
- (2) 12
- (3) 3
- (4) 18

- 9 The line graph shows Jennifer's savings from August to November. Her average savings for the five months from August to December was \$78. How much did she save in December?



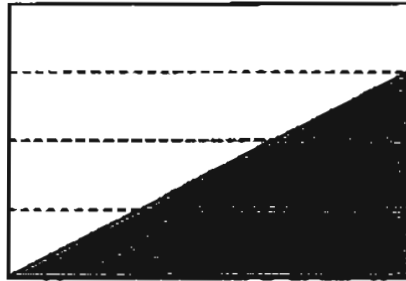
- (1) \$390  
 (2) \$280  
 (3) \$110  
 (4) \$70
- 10 Each of the three cards shown is printed with a different whole number. The biggest number is 34. When these numbers are added two at a time, the sums are 43, 49 and 62. What is the smallest number on the cards?

- (1) 9  
 (2) 15  
 (3) 28  
 (4) 47



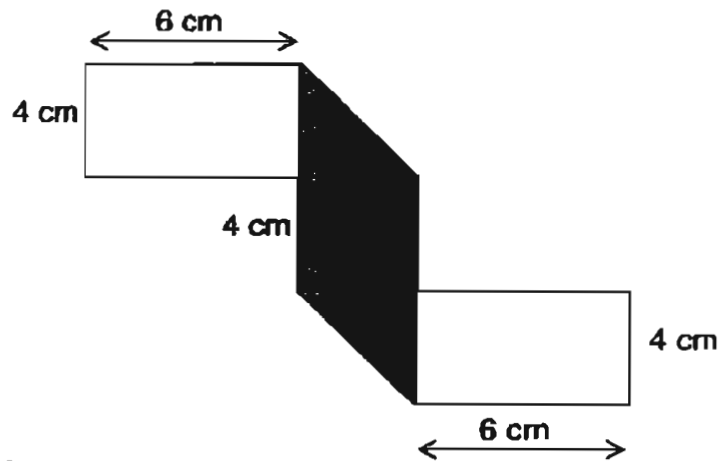
5

- 11 The figure below consists of 4 identical rectangles. The ratio of the shaded part to the unshaded part is \_\_\_\_\_.



- (1) 1 : 3
- (2) 1 : 2
- (3) 3 : 5
- (4) 3 : 8

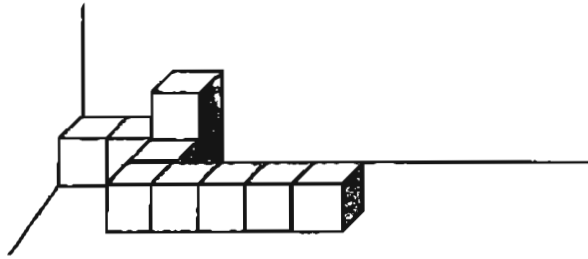
- 12 A rectangular piece of paper was folded twice to form the shape shown below. What is the area of the rectangular piece of paper before it was folded?



- (1) 48 cm<sup>2</sup>
- (2) 64 cm<sup>2</sup>
- (3) 80 cm<sup>2</sup>
- (4) 96 cm<sup>2</sup>

13

The solid below is made up of 1-cm cubes. The cubes are placed at the corner of the room. What is the total exposed surface area of the solid? (exclude faces in contact with the wall and floor)



- (1) 10 cm<sup>2</sup>
- (2) 27 cm<sup>2</sup>
- (3) 28 cm<sup>2</sup>
- (4) 41 cm<sup>2</sup>

14

The distance between Town X and Town Y is 60 km. Mr Lee started from Town X and travelled towards Town Y at a speed of 50 km/h. At the same time, Mr Tan started from Town Y and travelled towards Town X at a speed of 70 km/h. How far had Mr Lee travelled when they passed each other on the way?

- (1) 25 km
- (2) 35 km
- (3) 50 km
- (4) 70 km

15

75% of the girls and 25% of the boys in a class of 36 pupils wear spectacles. 21 pupils in the class do not wear spectacles. How many girls in the class wear spectacles?

- (1) 8
- (2) 9
- (3) 15
- (4) 27



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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.

School : \_\_\_\_\_

Name : \_\_\_\_\_

Class : \_\_\_\_\_

Date : 13 September 2005

TOTAL	75
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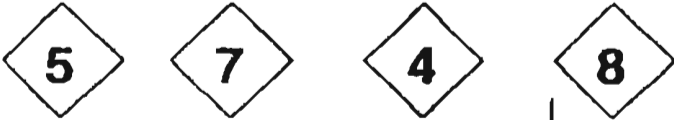
**Section B (20 marks)**

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

16 The digit '7' in 70 000 is in the \_\_\_\_\_ place.

Ans : \_\_\_\_\_

17 Form the largest multiple of 4 with the digits below. Use all the digits once only.



Ans : \_\_\_\_\_

18 Evaluate  $\frac{1}{3} - \frac{2}{3} \div 4 + 4$

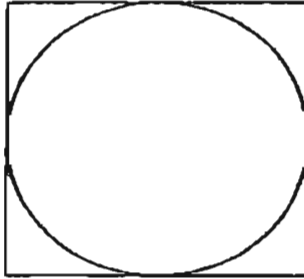
Ans : \_\_\_\_\_

19 Find the sum of 20 tenths, 0.2 hundredths and 200 thousandths.

Ans : \_\_\_\_\_

20

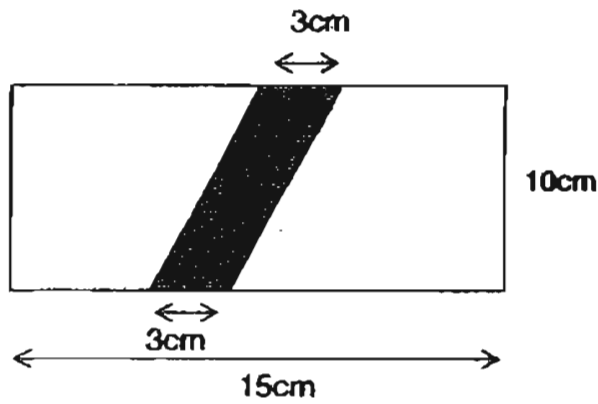
The figure below shows a circle in a 10-cm square. Find the length of wire required to form the figure below. Leave  $\pi$  in your answer.



Ans : \_\_\_\_\_ cm

21

Find the area of the unshaded part of the figure below.



Ans : \_\_\_\_\_ cm<sup>2</sup>

22

Siti is 9 years 8 months old now. How old will she be in 8 months' time?

Ans : \_\_\_\_\_ years \_\_\_\_\_ months

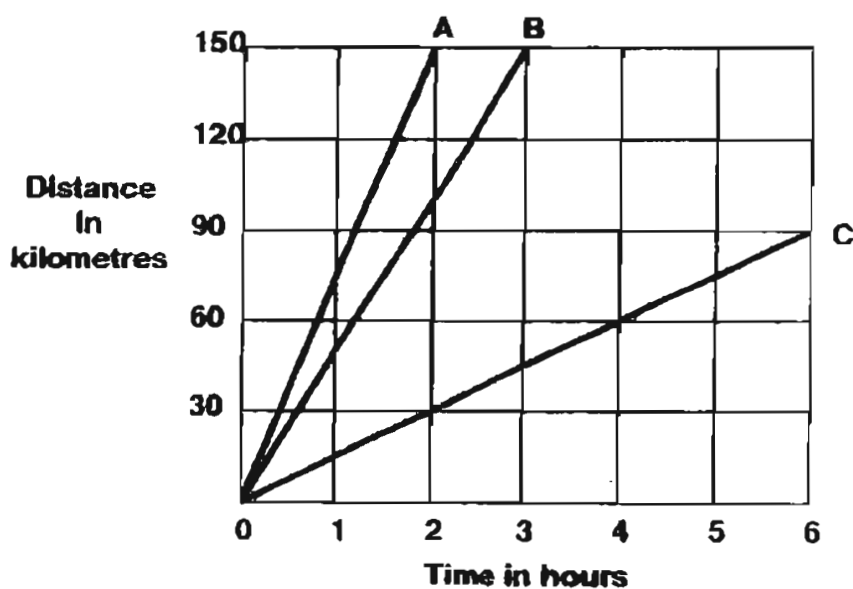
23

Mdm Maniam brought \$20 to the market. Mutton was sold at \$3.60 for 250g. She bought 1 kg. How much money had she left?

Ans : \$ \_\_\_\_\_

Use the graph below to answer questions 24 and 25.

The graph shows the distance travelled by A, B and C.



24

Which one of them is travelling at the highest speed among the three?

Ans : \_\_\_\_\_

25

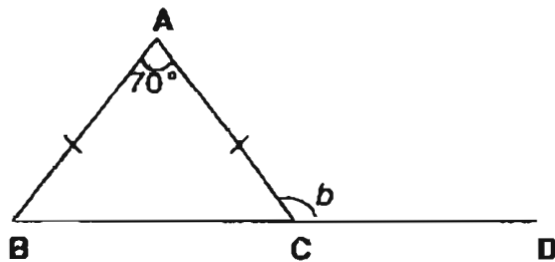
Which one of them is most likely to be riding a bicycle?

Ans : \_\_\_\_\_

26 Jimmy is 1.28m tall. He is 2cm taller than his brother. What is their total height?

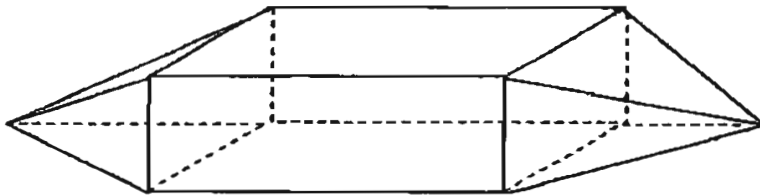
Ans : \_\_\_\_\_ m

27 In the figure below, ABC is an isosceles triangle and BCD is a straight line. Find  $\angle b$ .



Ans : \_\_\_\_\_ °

28 The net of the solid shown below consists of \_\_\_\_\_ triangles.



Ans : \_\_\_\_\_

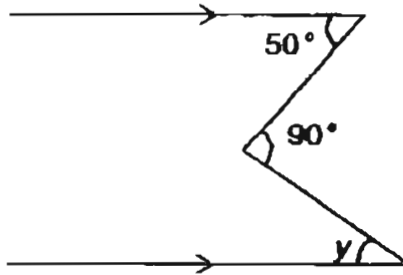
29

Draw 2 more squares to complete the net below so that it can be folded into a cube. (The shaded square is the base of the cube)



30

In the figure below, find  $\angle y$ .



Ans : \_\_\_\_\_°

31

The ratio of John's savings to Melinda's savings is 5:6. If John has \$150 less than Melinda, what is the total amount of their savings?

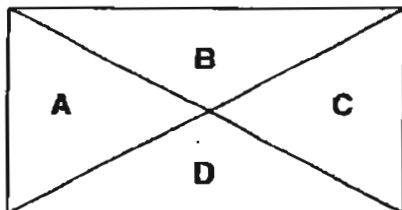
Ans : \$ \_\_\_\_\_

32

Polly will be  $x$  years old in 2 years' time. How old was she 2 years ago?  
( Give your answer in terms of  $x$  )

Ans . \_\_\_\_\_ yrs old

- 33 The rectangle below is divided into four parts A, B, C and D as shown.  
Find the ratio of Area B to the sum of Area A and Area C.



Ans : \_\_\_\_\_

- 34 Mrs Lim gave a Mathematics quiz consisting of 5 questions to her class of 40 pupils. She recorded the number of questions they answered correctly in the table below.

Number of questions answered correctly	Number of pupils
5	6
4	11
3	12
2	4
1	2

What was the average number of questions the pupils answered correctly?

Ans : \_\_\_\_\_

- 35 Ali's age is  $\frac{2}{3}$  of Jonathan's age. Jonathan's age is \_\_\_\_\_ % of Ali's age.

Ans : \_\_\_\_\_ %

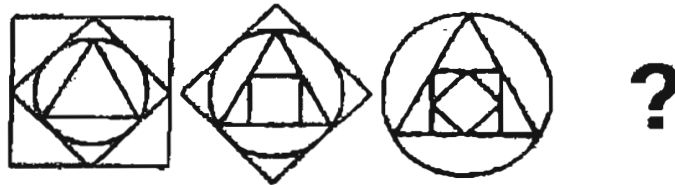
**SECTION C (55 MARKS)**

For each question, from 36 to 50, show your working clearly in the space provided. Marks are awarded for relevant working shown. Marks awarded for each question or part question are shown in brackets.

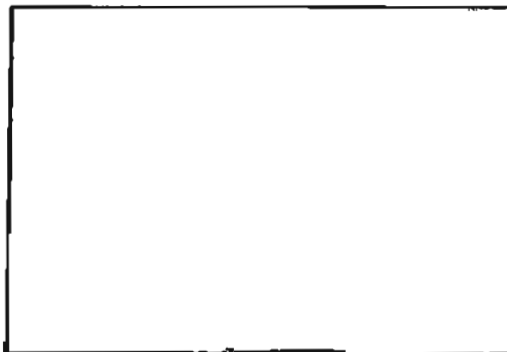
- 36 In a family, a girl has twice as many brothers as sisters. Each boy has as many brothers as sisters. How many children are there in the family?

Ans: \_\_\_\_\_ (2m)

- 37 Look at the figures below. Draw the figure that comes next in the box provided.



Ans:



(2m)

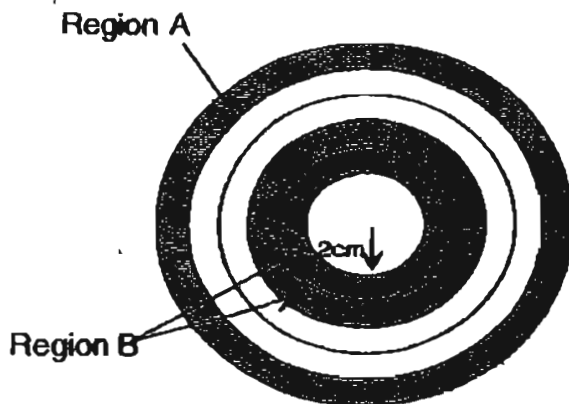
38 Mrs Sidd had 14 similar boxes. She baked some tarts and put  $y$  tarts into each box. There were 5 tarts left. How many tarts did she bake in all?

Ans: \_\_\_\_\_ (2m)

39  $\frac{1}{2}$  of  $M$  +  $\frac{2}{3}$  of  $M$  = 56  
 What is the value of  $M$  ?

Ans: \_\_\_\_\_ (3m)

40 Study the diagram below. The smallest circle has a radius of 2 cm. The difference in radius between one circle and the next is 1 cm.  
 (a) What is the diameter of the biggest circle?  
 (b) What is the difference in area between region A and region B?  
 (Leave your answer in  $\pi$ )



Ans: (a) \_\_\_\_\_ (1m)

(b) \_\_\_\_\_ (2m)



- 41 (a) In the space below, draw a triangle ABC in which  $AB = 5 \text{ cm}$ ,  $BC = 6 \text{ cm}$  and  $\angle ABC = 120^\circ$ .

(b) Measure and write down the length of AC.

Ans: (a) \_\_\_\_\_ (2m)

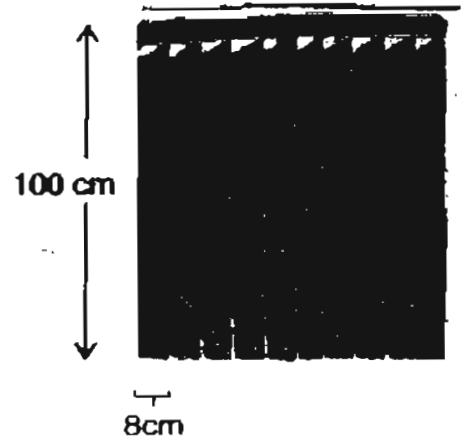
(b) \_\_\_\_\_ (1m)

- 
- 42 72 pupils from Caring School sold a total of 1260 charity tickets.  $\frac{1}{6}$  of them sold the same number of tickets each. Each of the rest of the pupils sold 4 times as many tickets as each of the pupils in the first group. How many tickets did each child in the second group sell?

Ans: \_\_\_\_\_ (4m)

43

The vertical blind shown below consists of 10 vertical rectangular strips each measuring 8 cm by 100 cm. When the strips are turned to a closed position, each strip overlaps the next by 20%. What is the area of the blinds when it is set to a closed position?



Ans: \_\_\_\_\_ (4m)

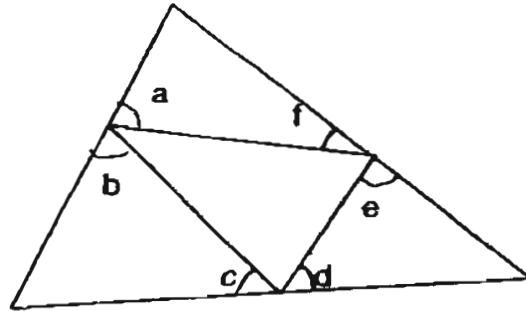
44

A fruiterer had 240 kg of fresh plums. The plums contained 75% water when fresh. Six days later, there was only 70% water in the plums. What was the weight of the plums six days later?

Ans: \_\_\_\_\_ (4m)

45 | Study the diagram below.

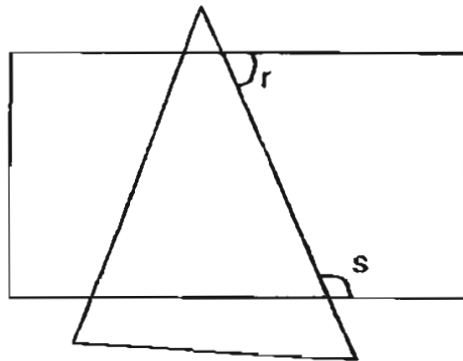
(a) What is the sum of  $\angle a$ ,  $\angle b$ ,  $\angle c$ ,  $\angle d$ ,  $\angle e$  and  $\angle f$  ?



Ans: \_\_\_\_\_ (2m)

(b) The figure below shows a rectangle and a triangle.

$\angle r + \angle s =$  \_\_\_\_\_



Ans: \_\_\_\_\_ (2m)

46

Ali and Muthu share a sum of money. If Ali gives  $\frac{1}{2}$  of his share to Muthu, Muthu will have \$48 more than Ali. If Ali gives  $\frac{1}{4}$  of his share to Muthu, Muthu will have \$28 more than Ali. What is the ratio of Ali's share to Muthu's share?

Ans: \_\_\_\_\_ (4m)

47

A cashier had 98 pieces of \$20 notes and \$50 notes in a drawer. She took out  $\frac{3}{4}$  of the \$50 notes and put in another ten \$20 notes. As a result, the number of \$20 notes was five times the number of \$50 notes. What was the total value of the \$20 notes in the drawer at first?

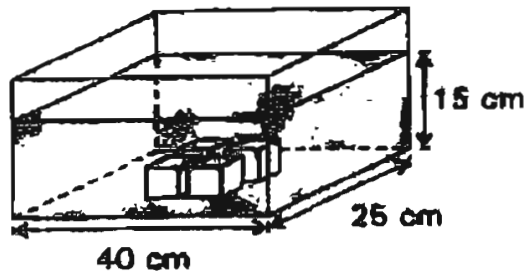
Ans: \_\_\_\_\_ (5 m)

48

An empty tank contains 4 solid iron cubes each of side 6 cm. The tank is then filled with water up to a height of 15 cm as shown.

(a) Find the volume of the water in the tank.

(b) If another cube of side 10 cm is now put into the tank, what is the height of the water level?



Ans: (a) \_\_\_\_\_ (3m)

(b) \_\_\_\_\_ (2m)

49 Peter and Eric had a race round a circular track of 400m at a uniform speed in the same direction. Peter took  $1\frac{1}{2}$  minutes to complete each round and Eric took  $1\frac{1}{4}$  minutes to complete each round.

(a) If they started the race at the same time, what was the distance between them after 45 seconds ?

(b) How many rounds would it take Eric to meet Peter for the first time?

Ans: (a) \_\_\_\_\_ (3m)



(b) \_\_\_\_\_ (2m)

- 50 3 cubic metal blocks with side 6 cm each were melted. 25% of the molten metal was used to make a rectangular block. 50% of the remaining molten metal was used to make a block with a square base and a height of 3 cm. What was the length of the square base?

Ans: \_\_\_\_\_ (5m)

SINGAPORE HOKKIEN HUAY KUAN 5-SCHOOL  
COMBINED PRELIMINARY EXAMINATION - 2005  
PRIMARY SIX  
MATHEMATICS

SAZ

- 1) 2  
2) 2  
3) 3  
4) 4  
5) 3  
6) 4  
7) 4  
8) 1  
9) 3  
10) 2  
11) 3  
12) 4  
13) 3  
14) 1  
15) 2  
16) ten thousands  
17) 7584  
18)  $4 \frac{1}{6}$   
19) 2.202  
20)  $40 + 10\pi$   
21) 120  
22) 10 years 4 months  
23) \$ 5.60  
24) A  
25) C  
26) 2.54  
27) 125  
28) 8  
29)   
30) 40  
31) 1650  
32)  $(x - 4)$   
33) 1 : 2  
34) 3  
35) 150  
36) 7  
37)   
38)  $14y + 5$   
39) 48  
40) a) 14 cm      b)  $\pi$  cm<sup>2</sup>  
41) a)              b) 9.5 cm  
42) 20  
43) 6560 cm<sup>2</sup>  
44) 200 kg  
45) a) 360°      b) 180°  
46) 5 : 6  
47) \$ 1000  
48) a) 14136 cm<sup>3</sup>      b) 16 cm  
49) a) 40 m      b) 6  
50) 9 cm

— TMB END —  
24