



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 • AITONG • CHONGFU • NAN CHIAU • KONG HWA

2011

数学 MATHEMATICS
PAPER 1
BOOKLET A

Total Time for Booklets A and B: 50 min

INSTRUCTIONS TO CANDIDATES

- √ Do not open this booklet until you are told to do so.
- √ Follow all instructions carefully.
- √ Answer all questions.
- √ Shade your answers in the Optical Answer Sheet (OAS) provided
- √ You are not allowed to use a calculator.

This booklet consists of 7 printed pages.

School : _____
Name : _____
Class : _____

TOTAL	20
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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 6 tens 9 hundredths 4 thousandths written as a decimal is _____.

- (1) 60.094
- (2) 60.49
- (3) 60.904
- (4) 60.94

2 Which of the following is the same as 8 l 3 ml ?

- (1) 803 ml
- (2) 830 ml
- (3) 8003 ml
- (4) 8300 ml

3 A pencil costs p cents and a ruler costs 20 cents more than a pencil. Express the total cost of 2 such pencils and 1 ruler in terms of p .

- (1) $(p + 20)$ cents
- (2) $(3p + 20)$ cents
- (3) $21p$ cents
- (4) $40p$ cents

- 4 What is the reading indicated by the arrow in the number line below?

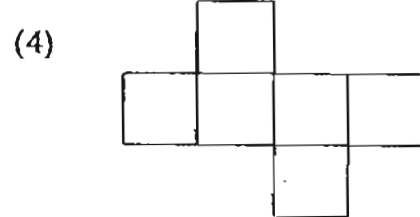
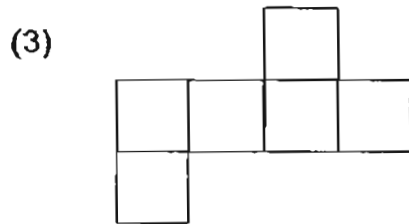
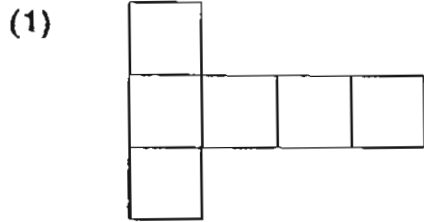


- (1) $6\frac{1}{2}$
- (2) $6\frac{3}{4}$
- (3) $7\frac{1}{4}$
- (4) $7\frac{1}{2}$
- 5 The clock shown below is faster by 20 minutes.
What is the actual time?



- (1) 11.45 a.m.
- (2) 11.50 a.m.
- (3) 12.05 p.m.
- (4) 12.25 p.m.

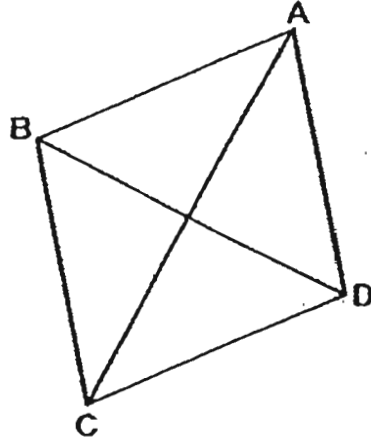
6 Which of the nets shown below will not form a cube when folded?



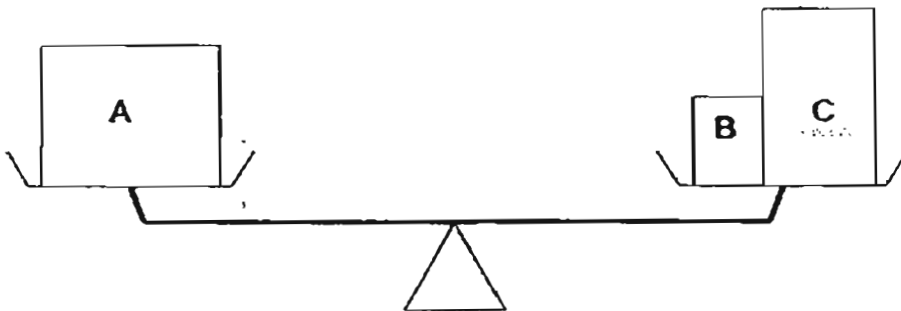
7 A machine can fill 40 identical bottles with jam in 30 minutes. At this rate, how many such bottles of jam can it fill in 1 hour and 30 minutes?

- (1) 60
- (2) 80
- (3) 120
- (4) 160

- 8 The figure below shows a rhombus ABCD. Which two lines are perpendicular to each other?



- (1) AC and BD
(2) AC and AD
(3) AB and BC
(4) AB and CD
- 9 The figure below shows 3 parcels A, B and C on a balance scale.






The mass of Parcel A is 12 kg. What is the average mass of the 3 parcels?

- (1) 6 kg
(2) 8 kg
(3) 12 kg
(4) 18 kg

10 $72 \heartsuit 9 \text{ 😊 } 3 \star 7 = 51$

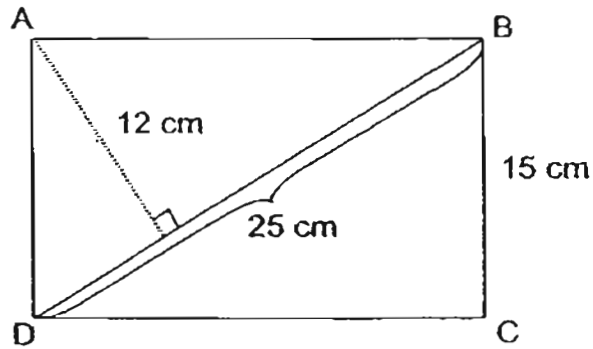
Which operations make the above number sentence correct?

			
(1)	÷	×	+
(2)	+	÷	×
(3)	−	÷	×
(4)	÷	−	+

11 Hassan spent 20% of his money on a shirt. He spent $\frac{2}{5}$ of the remainder on a pair of jeans which cost \$64. How much money did he have at first?

- (1) \$80
- (2) \$96
- (3) \$160
- (4) \$200

12 ABCD is a rectangle. Find the length of AB.



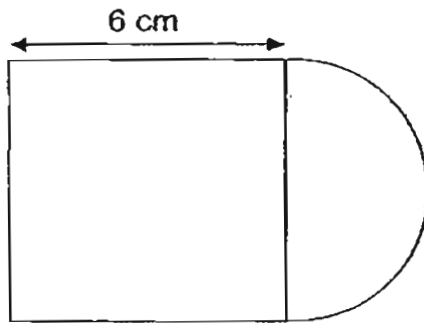
- (1) 10 cm
- (2) 20 cm
- (3) 25 cm
- (4) 30 cm

13 Study the pattern below and find the missing number in the box.

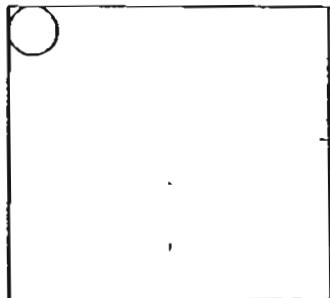
1	3	5	7	9	11	.	.	.	99
↓	↓	↓	↓	↓	↓				↓
1	2	3	4	5	6	.	.	.	?

- (1) 10
- (2) 49
- (3) 50
- (4) 98

- 14 The figure below is made up of a square and a semicircle. Find the perimeter of the figure.



- (1) $(3\pi + 18)$ cm
(2) $(3\pi + 24)$ cm
(3) $(6\pi + 18)$ cm
(4) $(6\pi + 24)$ cm
- 15 A square piece of paper has an area of 196 cm^2 . Mary wants to cut out circles of radius 1 cm from it. What is the **greatest** number of such circles she can get?



- (1) 14
(2) 28
(3) 49
(4) 196



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数学 MATHEMATICS
PAPER 1
BOOKLET B

Total Time for Booklets A and B: 50 min

INSTRUCTIONS TO CANDIDATES

- √ Do not open this booklet until you are told to do so.
- √ Follow all instructions carefully.
- √ Answer all questions.
- √ You are not allowed to use a calculator.

This booklet consists of 7 printed pages.

School : _____
Name : _____)
Class : _____

TOTAL	20
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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)

Do not write in this space

16 Subtract 23 hundreds from 81 007.

Ans: _____

17 $\frac{3}{5}$ of the beads in a box are red beads. The rest are yellow beads. There are 45 fewer yellow beads than red beads. How many beads are there in the box?

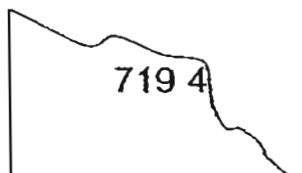
Ans: _____

18 The price of a book without GST is \$25. If a customer has to pay a 7% GST, what is the total amount payable?

Ans: \$ _____

Do not write in this space

- 19 I wrote a 6-digit number on a piece of paper. Part of the paper was torn as shown below. The number was 719 400 when rounded off to the nearest 100. What could the greatest missing value be?



Ans: _____ tens _____ ones

- 20 The mass of a bag of flour is 12.32 kg. It is packed equally into 4 packets. What is the mass of one packet of flour?

Ans: _____ kg

- 21 The length of the rectangle is twice its breadth. Express its perimeter in terms of α .



Ans: _____ cm

Do not write
this space

- 22 Aileen, Beth and Cathy shared a sum of money in the ratio 5 : 1 : 4. Cathy received \$75 more than Beth. How much money did Aileen receive?

Ans: \$ _____

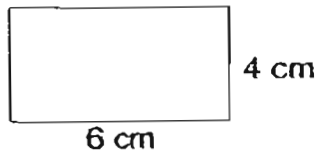
- 23 Huili is m years old. Her sister is 3 times as old as she is. How old will her sister be in 2 years' time?

Ans: _____ years old

- 24 Jack takes $\frac{1}{2}$ a vitamin pill every day. He has one bottle with 60 such pills. How many weeks and days will he take to finish the bottle?

Ans: _____ week(s) _____ day(s)

- 25 Joshua wants to make a square with rectangular cards each measuring 6 cm by 4 cm as shown below.



What is the least number of cards he needs to make a square?

Ans: _____

Do not write
in this space

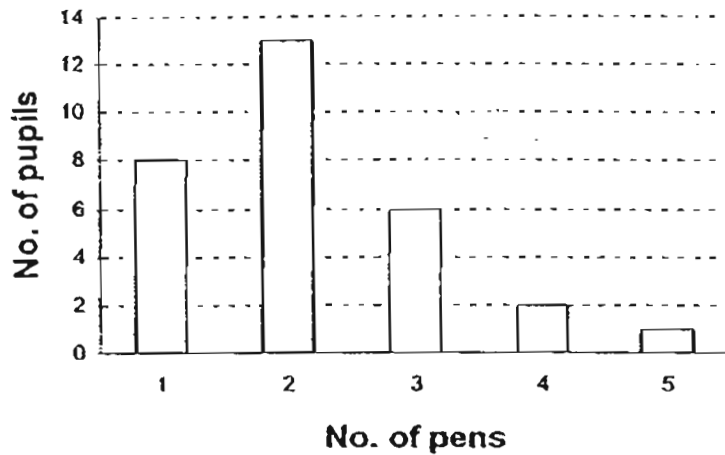
Total marks for questions 16 to 25

10

Questions 26 to 30 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space

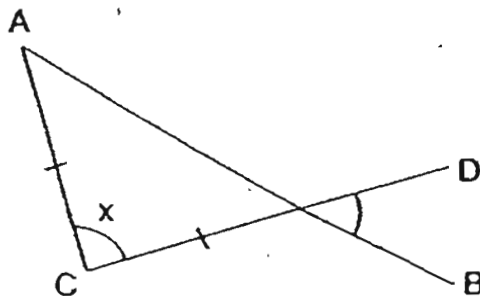
- 26 Mr Tan conducted a survey to find out the number of pens each pupil in his class has. He recorded the information in the bar chart shown below.



Find the total number of pens Mr Tan's pupils have.

Ans: _____

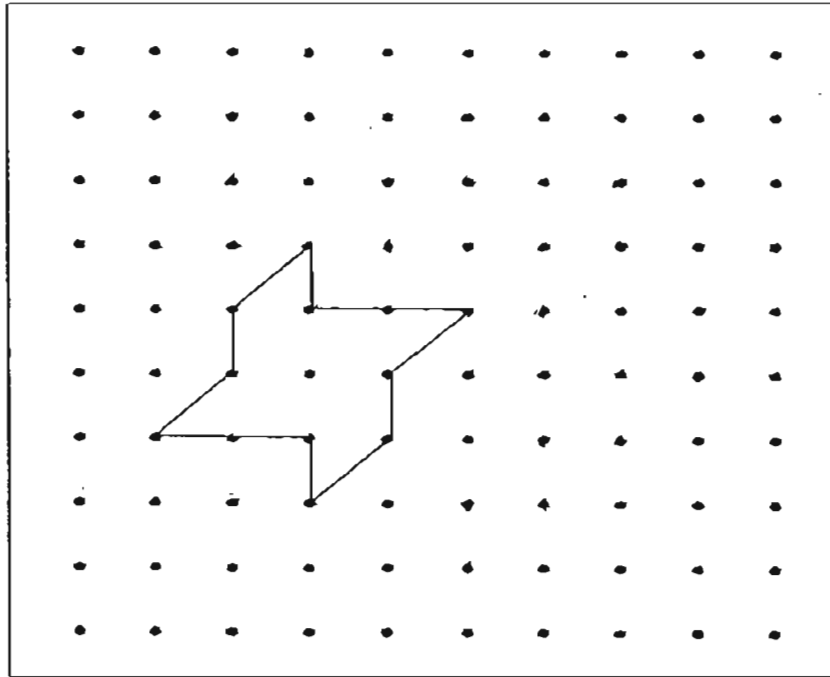
- 27 The figure below is not drawn to scale. AB and CD are straight lines. Find $\angle x$.



Ans: _____°

Do not write in this space

- 28 Extend the tessellation by drawing 4 more unit shapes in the space provided within the box.



- 29 The table below shows the charges at a car park in a shopping mall.

PARKING CHARGES	
7.00 a.m. to 5.00 p.m.	\$2.10 per entry
5.00 p.m. to 12 midnight	\$1.50 per hour or part thereof

Mr Jacob parked his car at the car park from 3.00 p.m. to 8.30 p.m.
How much did he have to pay for the parking fees?

Ans: \$ _____

- 30 Hansel and Gretel had an equal amount of money each. After Hansel spent \$428 and Gretel spent \$614, the ratio of Hansel's money to Gretel's money was 3 : 1. How much money did Hansel have at first?

Ans: \$ _____

Total marks for questions 26 to 30

10

END OF PAPER



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数学 MATHEMATICS

PAPER 2

Total Time: 1 h 40 min

INSTRUCTIONS TO CANDIDATES

- √ Do not open this booklet until you are told to do so.
- √ Follow all instructions carefully.
- √ Answer all questions.
- √ Show your working clearly as marks are awarded for correct answers
- √ You are allowed to use a calculator.

This booklet consists of 15 printed pages.

School : _____

Name : _____

Class : _____

TOTAL	60
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Questions 1 to 5 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

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this space

(10 marks)

- 1 Karen's monthly salary is twice as much as Sue's. Their average monthly salary is \$2302.50. How much does Karen earn in a month?

Ans: \$ _____

- 2 It takes Mr Adams 20 minutes to saw a pole into 5 equal pieces. How many minutes would it take him to saw another similar pole into 10 equal pieces?

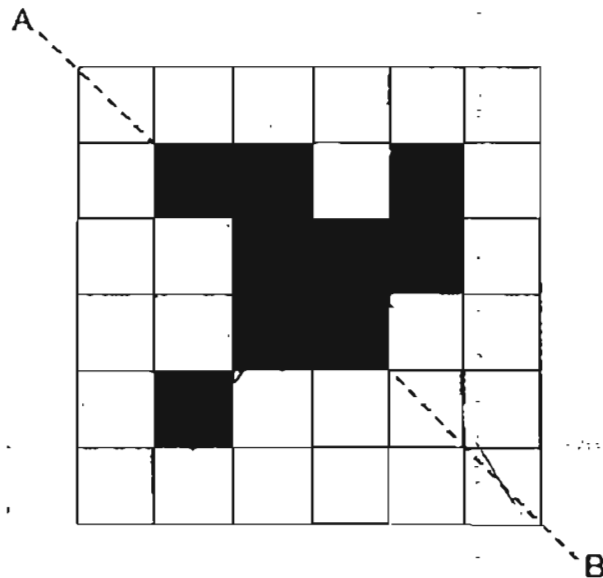
Ans: _____ min

- 3 Kasey needed to make 120 bows for prize-giving. She used 12.4 cm to make a bow. She bought 3 rolls of ribbon, each 5 m long. Find the length of ribbon she had left.

Do not write in this space

Ans: _____ m

- 4 The figure below shows 9 shaded squares. Shade 2 more squares to complete the figure so that the dotted line AB is a line of symmetry.



5 Study the number pattern.

Do not write
this space

A	B	C	D	E	F	G
	1		2		3	
7		6		5		4
	8		9		10	
...	
	

If this pattern continues, in which column will the number 80 appear?

Ans: _____



For questions 6 to 18, show your working clearly in the space provided for each question and write the 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)

Do not write in this space

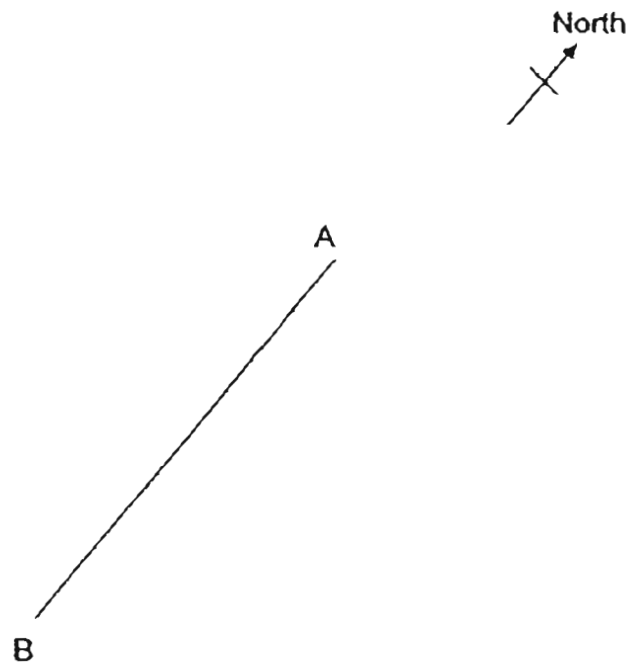
- 6 The number of motorcycles in a carpark was $\frac{1}{2}$ the number of cars. There were 220 more cars than motorcycles. After some motorcycles left the carpark, the number of cars in the carpark was ten times the number of remaining motorcycles. How many motorcycles left the carpark?

Ans: _____ [3]



7 In the figure below, A and B are 2 points on a map. Point A is north of point B. Point C is east of B and $\angle BAC$ is 40° .

(a) Draw a triangle ABC by completing the figure. [2]

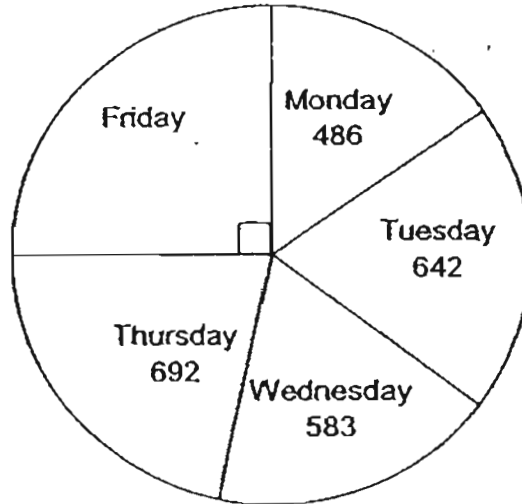


(b) Measure and write down the length of AC.

Ans: _____ [1]

- 8 The pie chart below shows the number of people visiting a theme park over five days.

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this space



- (a) How many people visited the theme park on Friday?
- (b) How much did the theme park collect for the five days if the entry fee was \$4.50 per person?

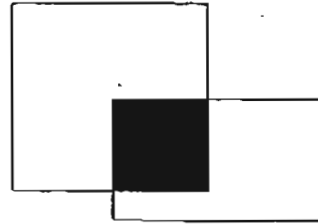
Ans: (a) _____ [2]

(b) _____ [1]



- 9 The figure below is made up of a square and a rectangle overlapping each other. The ratio of area X to the area of the square is 1 : 4. The ratio of area X to the area of the rectangle is 4 : 13. Find the length of each side of the square if the area of the rectangle is 52 cm^2 .

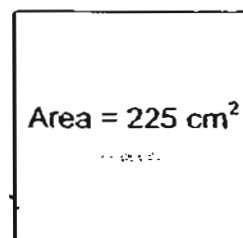
Do not write
this space



Ans: _____ [3]



- 10 The figure below is a square of area 225 cm^2 . Find the decrease in area if the length of each side is reduced by 20%.



Ans: _____ [3]



- 11 Carol, Denise and Eliza had a total of 342 stamps. The number of stamps Denise had was $\frac{1}{3}$ the number of stamps Eliza had. After Carol and Denise each gave away $\frac{1}{2}$ of their stamps, the 3 girls had 267 stamps left. How many stamps did Denise have at first?

Do not write
this space

Ans: _____ [4]



12 Lucy had a box of buttons. The number of square buttons was 40% of the number of round buttons. The number of oval buttons was $\frac{2}{3}$ of the number of square buttons.

Do not write in this space

- (a) Given that there were 60 oval buttons, how many buttons were there in the box?
- (b) What fraction of the buttons were round?
(Express your answer in its simplest form.)

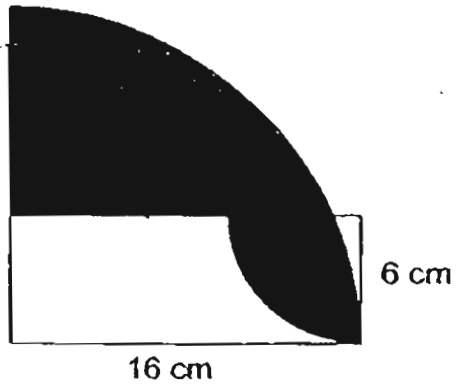
Ans: (a) _____ [3]

(b) _____ [1]



- 13 The figure is made of 2 quadrants and a rectangle. Using the calculator value of π , find the area of the shaded part. Correct your answer to 2 decimal places.

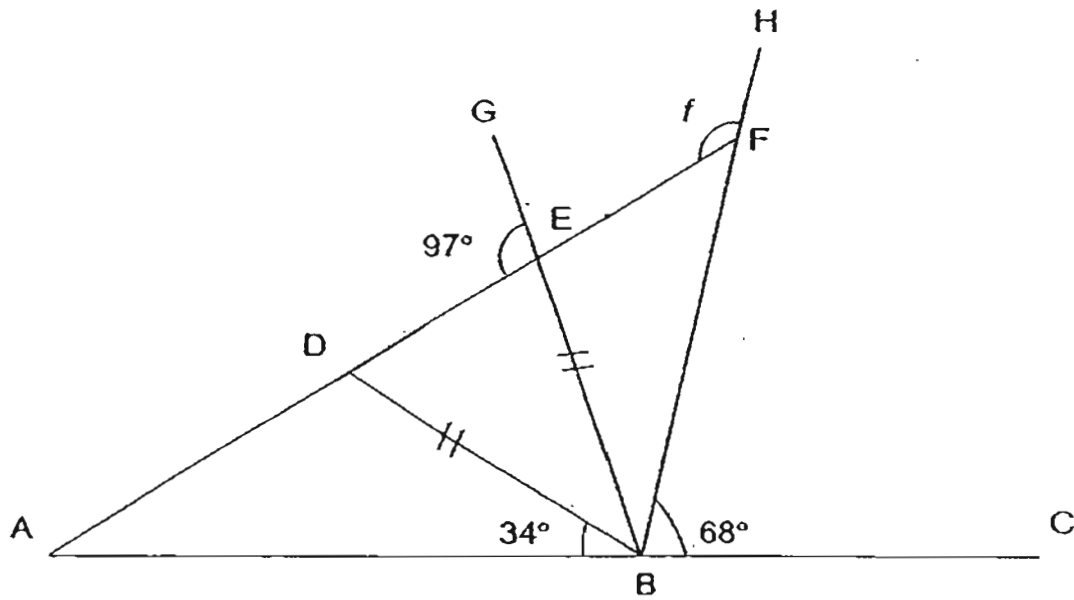
Do not write in this space



Ans: _____ [4]



- 14 In the figure, not drawn to scale, AC, AF, BD, BG and BH are straight lines. Do not write in this space
 BD = BE. Find $\angle f$.



Ans: _____ [4]



- 15 A car left Town A for Town B. At the same time, a lorry left Town B for Town A. The average speed of the car was 90 km/h while the speed of the lorry was 70 km/h. The two vehicles passed each other at a point 36 km away from the mid-point between Town A and Town B. What was the distance between Town A and Town B?

Do not write
this space

Ans: _____ [4]

16 There were a total of 930 boys and girls at a carnival.

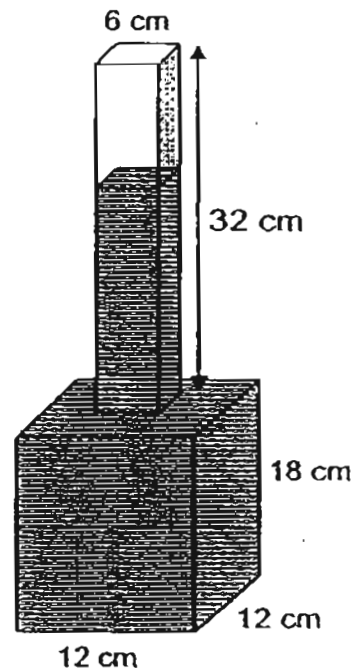
After $\frac{4}{5}$ of the boys and $\frac{3}{4}$ of the girls left, there were 120 more girls than boys that remained. How many boys were at the carnival at first?

Do not write in this space

Ans: _____ [5]



- 17 The figure below shows a water bottle $\frac{7}{8}$ filled with water. It is made from two containers. The top container is in the form of a cuboid which has a square base of side 6 cm and height 32 cm. The bottom container is also in the form of a cuboid which has a square base of 12 cm and height 18 cm. Find the height of the water level from the base of the bottle.



Ans: _____ [5]

Do not write
in this space

18 Mrs Lee made some curry puffs and sardine puffs. The ratio of the number of curry puffs to the number of sardine puffs was 3 : 4. She made another 65 curry puffs and sold 27 sardine puffs. The ratio became 5 : 3.

Do not write in this space

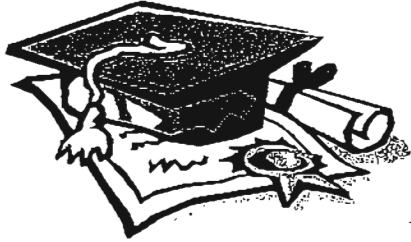
- (a) How many curry puffs and sardine puffs did Mrs Lee make altogether at first?
- (b) Mrs Lee sold all the curry puffs and sardine puffs she made at \$0.80 each. How much did she collect?

Ans: (a) _____ [3]

(b) _____ [2]



END OF PAPER

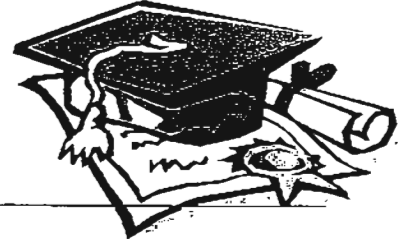


ANSWER SHEET

EXAM PAPER 2011

**SCHOOL : HOKKIEN
SUBJECT : PRIMARY 6 MATHEMATICS**

TERM : PRELIMINARY



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
1	3	2	3	1	2	3	1	2	3	4	2	3	1	3

16) 78707

17) 225 beads

18) \$26.75

19) 4 tens 9 ones

20) 3.08kg

21) 6a cm

22) \$125

23) $(3m+2)$ yrs old

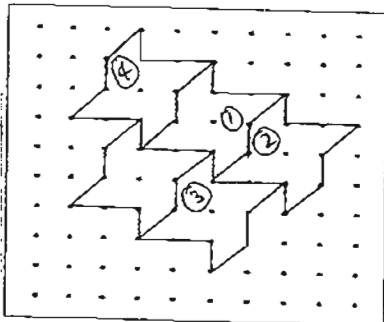
24) 17 week(s) 1 days

25) 6 cards

26) 65 pens

27) 68°

28)



29) \$8.10

30) \$707

Paper 2

1) $2302.5 \times 2 = 4605$

$4605 \div 3 = 1535$

$1535 \times 2 = 3070$

Karen earns \$3070 in a month.

2) $5 - 1 = 4$

$20 \div 4 = 5$

$10 - 1 = 9$

$9 \times 5 = 45$

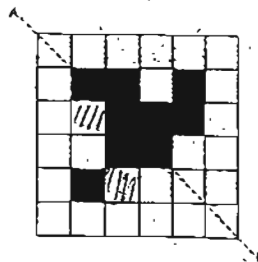
4 would take him 45 minutes.

3) $120 \times 12.4\text{cm} = 1488\text{cm} = 14.88\text{m}$

$3 \times 5 = 15\text{m}$

$15\text{m} - 14.88\text{m} = 0.12\text{m}$

4)

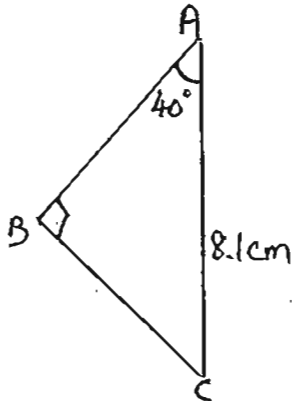


5) Column F

$$\begin{aligned} 6) 10 \div 10 &= 1 \\ 5 - 1 &= 4 \\ 10 - 5 &= 5 \\ 220 \div 5 &= 44 \\ 44 \times 4 &= 176 \end{aligned}$$

176 motorcycles left the carpark.

7)a)



b) The length of AC is 8.1 cm

$$\begin{aligned} 8) a) 486 + 642 + 583 + 692 &= 2403 \\ 2403 \div 3 &= 801 \end{aligned}$$

801 people visited the theme park on Friday.

$$\begin{aligned} b) 801 \times 4 &= 3204 \\ 3204 \times 4.5 &= 14418 \end{aligned}$$

The theme park collected \$14418 for the five days.

$$\begin{aligned} 9) 13 - 4 &= 9 \\ 4 + 9 &= 13 \\ 13u \rightarrow 52 \\ 1u \rightarrow 52 \div 13 &= 4 \\ 16u \rightarrow 16 \times 4 &= 64 \\ \sqrt{64} &= 8 \end{aligned}$$

$$\begin{aligned} 10) \sqrt{225} &= 15 \\ 80/100 \times 15 &= 12 \\ 12 \times 12 &= 144 \\ 225 - 144 &= 81 \\ 81/225 \times 100/1 &= 36\% \end{aligned}$$

$$\begin{aligned} 11) 342 - 267 &= 75 \\ 75 \times 2 &= 150 \\ 342 - 150 &= 192 \\ 192 \div 6 \times 2 &= 64 \end{aligned}$$

Denise had 64 stamps at first.

12)a) $60 \div 4 \times 25 = 375$

There were 375 buttons in the box.

b) $60 \div 4 \times 15 = 225$

$225/375 = 3/5$

3/5 of the buttons were round.

13) $\Pi \times 16 \times 16 \times \frac{1}{4} = 201.0619$

$\Pi \times 6 \times 6 \times \frac{1}{4} = 28.2743$

$16 \times 6 = 96$

$201.0619 + 28.2743 - 96 = 133.34\text{cm}^2$

14) $\angle DEB \rightarrow 180^\circ - 97^\circ = 83^\circ$

$\angle DBE \rightarrow 180^\circ - 83^\circ - 83^\circ = 14^\circ$

$\angle EBF \rightarrow 180^\circ - 68^\circ - 14^\circ - 34^\circ = 64^\circ$

$\angle F \rightarrow 64^\circ + 97^\circ = 161^\circ$

$\angle F$ is 161°

15) $90\text{km/h} - 70\text{km/h} = 20\text{km/h}$

$36\text{km} \times 2 = 72\text{km}$

$72\text{km} \div 20\text{km/h} = 3.6\text{h}$

$90\text{km/h} + 70\text{km/h} = 160\text{km/h}$

$160\text{km/h} \times 3.6\text{h} = 576\text{km}$

The distance between Town A and Town B is 576km

16) $\frac{1}{4}G - 120 = \frac{1}{5}B$

$\frac{4}{4}G - 480 = \frac{4}{5}B$

$(\frac{4}{4}G - 480) + \frac{5}{5}B = 930 - 480 = 450$

$\frac{1}{5}B = 450 \div 9 = 50$

$\frac{5}{5}B = 50 \times 5 = 250$

There were 250 boys at the carnival at first.

17) $6 \times 6 \times 32 = 1152$

$12 \times 12 \times 18 = 2592$

$2592 + 1152 = 3744$

$3744/8 \times 7/1 = 3276$

$3276 - 2592 = 684$

$684 \div 6 \div 6 = 19$

$19 + 18 = 37$

The height of the water level from the base of the bottle is 37cm.

18)a) $9u + 195 = 20u - 135$

$135 + 195 = 20u - 9u$

$330 = 11u$

$30 = u$

$210 = 3u + 4u$

Mrs Lee made 210 curry puffs and sardine puffs altogether at first.

b) $210 + 65 = 275$

$275 \times 0.8 = 220$

She collected \$220