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

2010

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 6 printed pages.

School : _____

Name : _____ ( )

Class : _____

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.

(20 marks)

---

1 Round off 576 594 to the nearest ten thousands.

(1) 570 000

(2) 576 600

(3) 577 000

(4) 580 000

2 Which of the following is the smallest number that can be divided by 4 with no remainder?

(1) 4016

(2) 3338

(3) 1556

(4) 1014

3 The perimeter of an equilateral triangle is h cm. Find the length of one side of the triangle in terms of h.

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

(2) $\frac{3}{h}$ cm

(3) $3h$ cm

(4) $(3 + h)$ cm

4 What is 50 divided by 1000?

(1) 20

(2) 2

(3) 0.05

(4) 0.005

5 Sue-Ann was born on 15 August 2002.
How old will she be on 15 March 2011?

(1) 8 years 7 months

(2) 8 years 8 months

(3) 9 years 7 months

(4) 9 years 8 months

6 Bowen uses the letters L, M, N and O to form a pattern. The first 16 letters are shown below. Which letter is in the 69th position?

L L M N O L L M N O L L M N O L .....?
1st 16th 69th

(1) O

(2) N

(3) M

(4) L

7 Jane can type 50 words in 30 seconds.
At this rate, how many words can she type in 5 minutes?

(1) 100

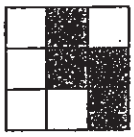
(2) 150

(3) 300

(4) 500

8 Each of the figures below is made up of nine squares.
In each figure, four squares are shaded.
Which figure is symmetrical?

(1) 

(2) 

(3) 

(4) 

9 The mass of box A is 6 kg. The total mass of Box B and Box C is 6 kg.
What is the average mass of the 3 boxes?

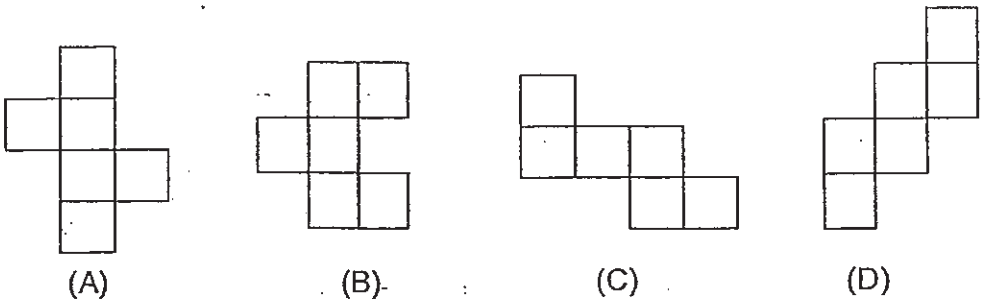
(1) 6 kg

(2) 2 kg

(3) 3 kg

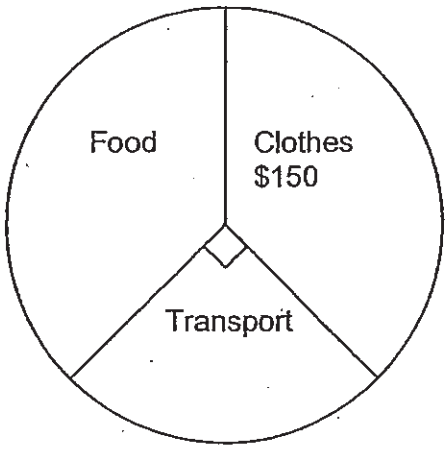
(4) 4 kg

10 Which of the following nets can be folded to form a cube?



(1) A only
(2) A and B
(3) A, C and D
(4) All of the above

11 The pie chart shows how Mrs Ang spent her money last month.



She spent $105 on transport.
How much more did she spend on food than transport?

(1) $15
(2) $60
(3) $165
(4) $270

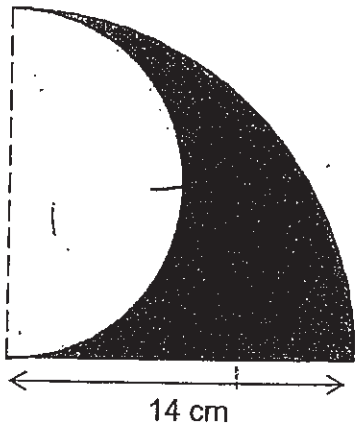
12 Town A and Town B are 980 km apart. A motorist travelled from Town A at a speed of 72 km/h towards Town B for $2\frac{1}{4}$ h. How far more must he travel to reach Town B?

(1) 32 km
(2) 162 km
(3) 818 km
(4) 948 km

13 In a school, 55% of the pupils are boys. 20% of the boys and 10% of the girls wear spectacles. What percentage of the pupils in the school **does not** wear spectacles?

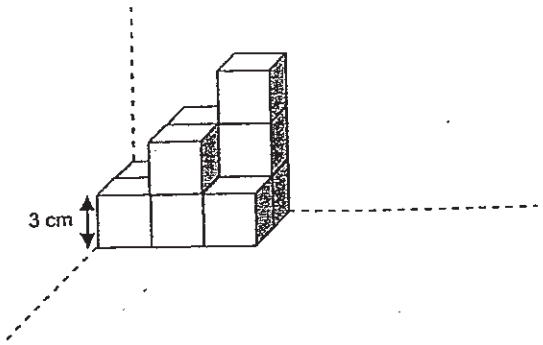
(1) 85%
(2) 84.5%
(3) 70%
(4) 15.5%

14 The figure below is made up of a quadrant and a semi-circle.
Find the perimeter of the shaded part. (Take $\pi = \frac{22}{7}$)



(1) 44 cm
(2) 47 cm
(3) 58 cm
(4) 77 cm

15 The solid figure below is made up of 3-cm cubes. If Leny wants to form a cuboid of volume 486 cm^3, how many more 3-cm cubes does she need?



(1) 8

(2) 9

(3) 10

(4) 18

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2010
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 6 printed pages.

School : _____

Name : _____ ( )

Class : _____

TOTAL	/20

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 Find the sum of $\frac{8}{10}$ and $\frac{5}{1000}$ as a decimal.

Ans: _____

17 The sum of 3 numbers is 246. The difference between the biggest number and smallest number is 2. What is the smallest number?

Ans: _____

18 What is the missing number in the box?

15 : 12 = 25 : ☐

Ans: _____

19 $\frac{3}{10}$ of a number is 54. What is the number?

Ans: _____

Do not write in this space

20 Mrs Tan cut a piece of cloth of length 24 m 28 cm into 2 pieces. The longer piece was thrice as long as the shorter piece. How long was the shorter piece of cloth?

Ans: _____ cm

21 Simplify the following expression.

$1 + 16p + 3 - 8p - 2 + 25p$

Ans: _____

22 The original price of a packet of biscuits was $2. During a sale, a discount of 15% was given. How much did Weiwei pay for the packet of biscuits during the sale?

Ans: $_____

23 There were 6 bottles of apple juice. The apple juice was then poured equally into 12 identical glasses. If there were p $m\ell$ of juice in each bottle, what was the amount of juice in each glass?

Ans: _____ $m\ell$

24 Study the number pattern shown below.
What is the number marked A?

$3 \times 37 = 111$

$6 \times 37 = 222$

$9 \times 37 = 333$

.
.
.
.

$A \times 37 = 888$

Ans: _____

25 A documentary programme on Discovery Channel lasted for 1 h 40 min. It ended at 8.35 p.m. What time did the programme start?

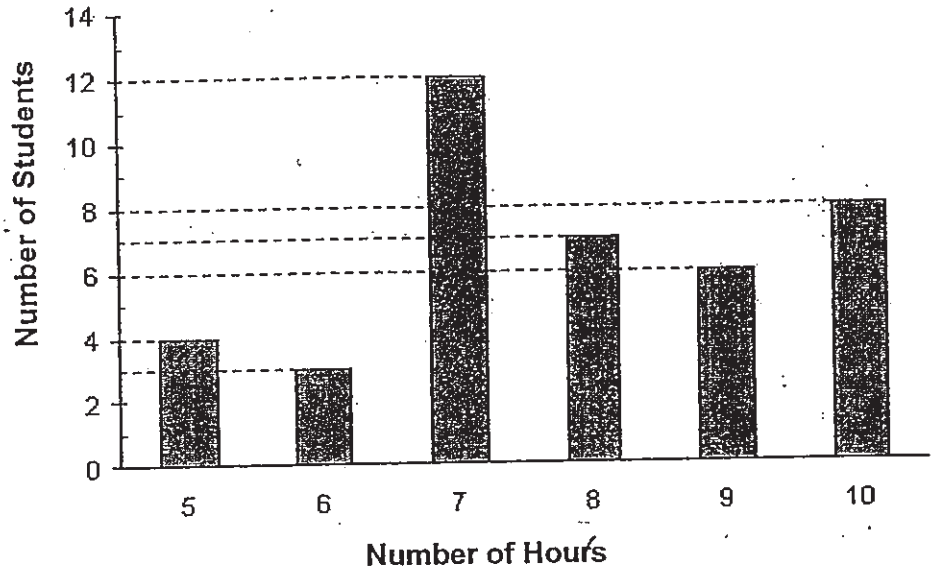
Ans: _____ p.m.

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 A survey was conducted on a group of students to find out the number of hours each of them spent surfing the Internet in a week.



Find the percentage of students who spent at least 9 hours that week surfing the Internet.

Ans: _____%

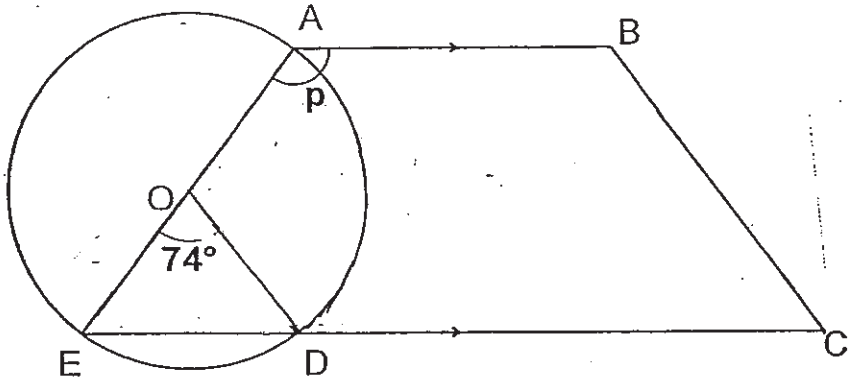
27 A wheel of diameter 49 cm makes 20 revolutions in 4 minutes.

How fast does it turn in m/min? (Take $\pi = \frac{22}{7}$)

Ans: _____m/min

Do not write in this space

28 The figure below, not drawn to scale, shows a circle with centre O and a trapezium ABCE. Find ∠p.



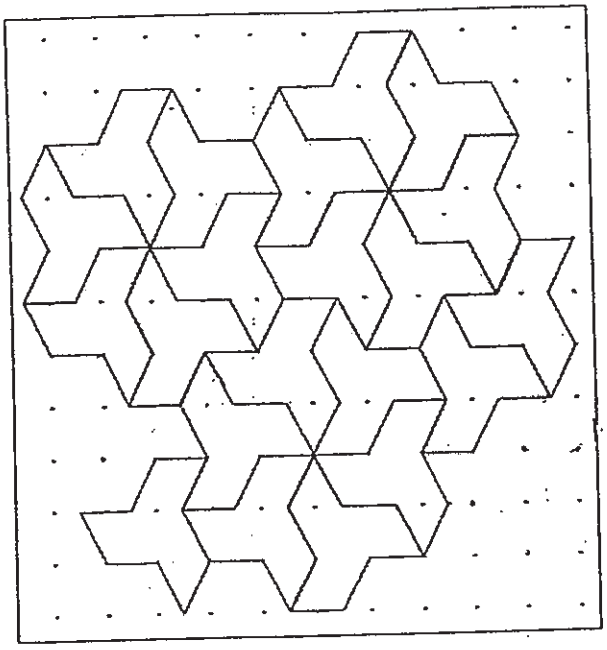
Ans: _____ °

29 Alice, Daisy and Felicia shared some sweets among themselves in the ratio 6 : 5 : 7. Alice then gave $\frac{1}{8}$ of her sweets to her brother, Jayden. If Jayden received 9 sweets, find the total number of sweets shared by the three girls.

Ans: _____

Do not write in this space

30 The pattern in the box shows part of a tessellation. Extend the tessellation by drawing **two** more unit shapes in the space provided in the box.



END OF PAPER

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2010

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

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.

(10 marks)

Do not write i this space

1 A sum of money was divided among Charles, Devi and Enci in the ratio 2 : 3 : 4 respectively. Enci received $60 more than Charles. What was the sum of money?

Ans: $ _____

2 Mr Lim was travelling at a speed of 50 km/h for 1 h 30 min and completed the rest of his journey at 70 km/h for 30 min. Find the average speed of his whole journey.

Ans: _____ km/h

Do not write in this space

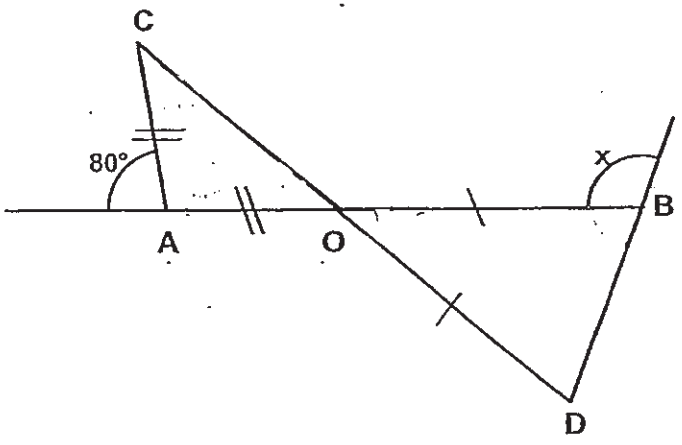
3

Recipe for Strawberry Icy-pop (to serve 8 people)
640 g strawberries 220 g of sugar 100 mℓ of water

Wendy wants to make icy-pop to serve 10 people. Using the recipe above, how much strawberries does she need?

Ans: _____ g

4 The figure below is not drawn to scale. AB and CD are straight lines. Find ∠x.



Ans: _____ °

5 At a bakery, muffins are sold at $1 each. When a customer buys 5 muffins, she can buy one more at half the price. What is the greatest number of muffins that a customer can buy with $20?

Do not write this space

Ans: _____

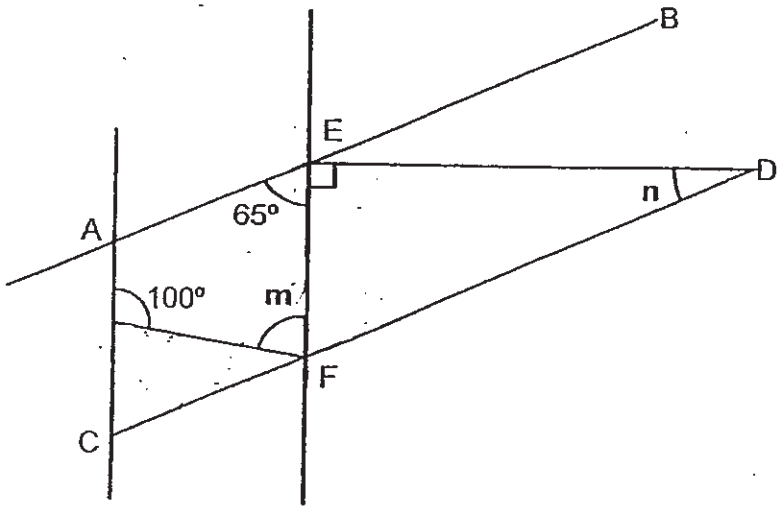
For questions 6 to 18, show your working clearly in the space provided for each question and write the answers in the spaces provided. The number of marks available is shown in the brackets [ ] at the end of each question or part-question. (50 marks)

Do not write in this space

6 Randy brought along a certain amount of money to buy files. If he bought the files at $1.50 each, he would have $17.50 left. If he bought the same number of files at $2.70 each, he would have $9.10 left. How much money did he bring along?

Ans: _____ [3]

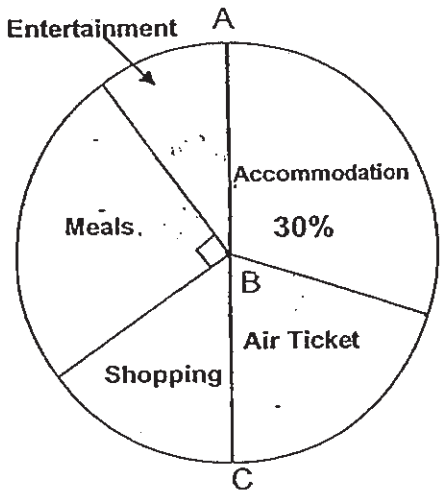
7 In the figure below, not drawn to scale, AB is parallel to CD and AC is parallel to EF. Find the sum of ∠m and ∠n.



Ans: _____ [3]

Do not write in this space

8 The pie chart below shows Sarah's expenses from her holiday overseas. (ABC is a straight line.) The amount of money she spent on air ticket was twice the amount she spent on entertainment.



(a) Find the percentage of her expenses spent on entertainment.

(b) If she spent $9000 for the holiday, how much did she spend on shopping?

Ans: (a) _____ [1]

(b) _____ [2]

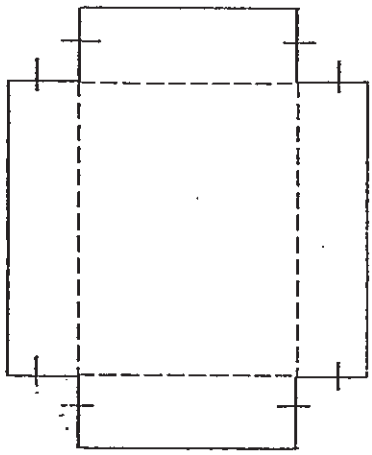
9 The number of pens in Box X and Box Y are in the ratio 3 : 2. All the pens in Box Y are green. The ratio of green pens to blue pens in Box X is 4 : 5. There are 12 more green pens in Box Y than in Box X. How many blue pens are there?

Do not write in this space

Ans: _____ [3]

10 The figure below shows the net of a rectangular box without a lid.

Do not write this space



The perimeter of the net of the rectangular box above is 72 cm. The height of the box is 4 cm. The length of the box is $1\frac{1}{2}$ times the breadth of the box. Find the volume of the box.

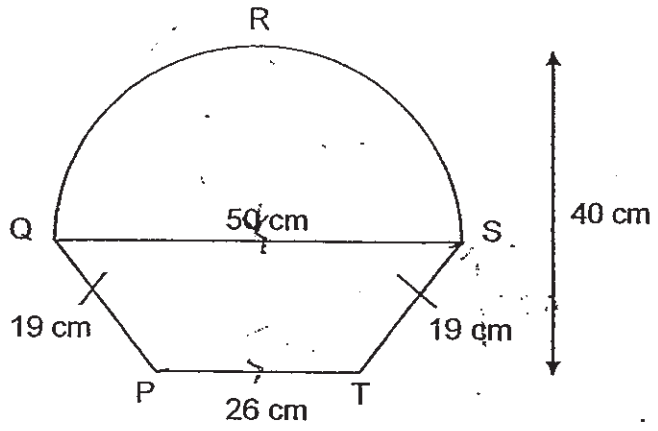
Ans: _____ [3]

11 In the figure below, not drawn to scale, PT is parallel to QS. QP = ST = 19 cm, PT = 26 cm and QRS is a semicircle with a diameter of 50 cm.

Do not write in this space

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

(Take $\pi = 3.14$)

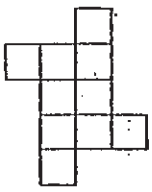
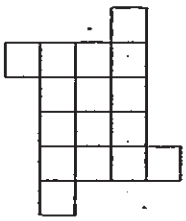
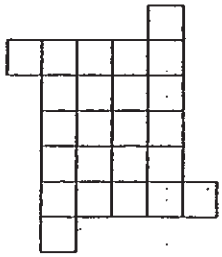


Ans: (a) _____ [2]

(b) _____ [2]

12 A series of figures is formed by using 1-cm squares as shown in the table below.

Do not write in this space

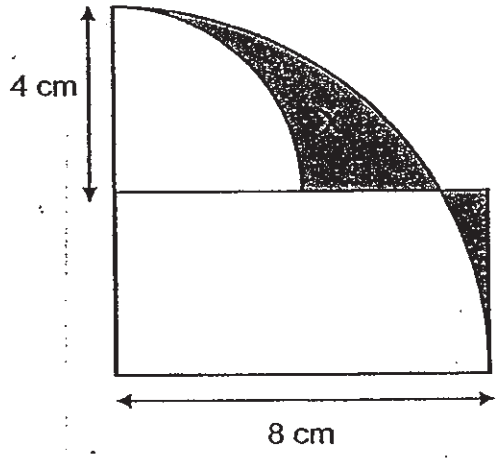
Figure	Perimeter of figure (cm)	Area of figure (cm^2)
Figure 1		6
 Figure 2	18	10
 Figure 3	22	16
 Figure 4	26	24

(a) Draw Figure 1 in the table above. [1]
(b) Write down the perimeter of Figure 1 in the table above. [1]
(c) Find the area of Figure 100.

Ans: (c) _____ [2]

13 The figure below shows 2 quarter circles and a rectangle. The radius of the big quarter circle is 8 cm. The radius of the small quarter circle is 4 cm. Find the difference in area between the two shaded parts X and Y. Use the calculator value of π and give your answer correct to 1 decimal place.

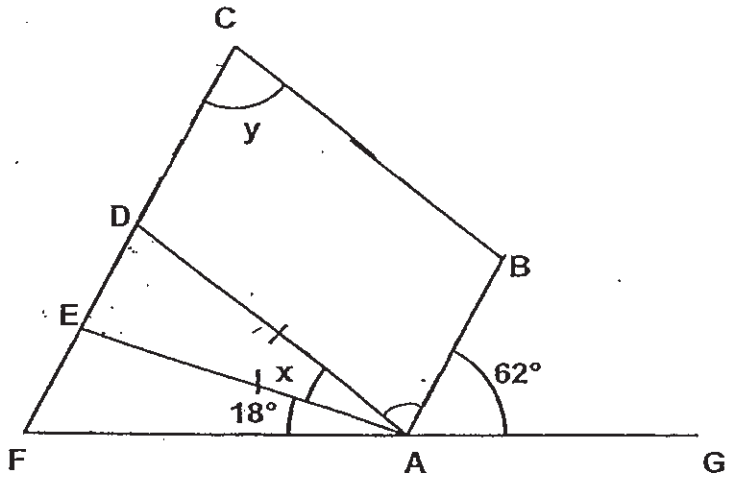
Do not write in this space



Ans: _____ [4]

14 In the figure below, not drawn to scale, ABCD is a parallelogram. AB, FC and FG are straight lines. ADE is an isosceles triangle.

(a) Find ∠x.
(b) Find ∠y.



Do not write this space

Ans: (a) _____ [3]

(b) _____ [1]

15 A car and a van started travelling from Town X to Town Y at the same time. The distance between the two towns was 225 km. Both vehicles did not change their speed. The car arrived at Town Y $\frac{3}{4}$ h earlier than the van. When the car reached Town Y, the van was still 45 km away from Town Y.
What was the speed at which the car was travelling?

Do not write in this space

Ans: _____ [4]

16 Yanling had 60% more stamps than Lena. Tricia had 75% fewer stamps than Yanling. Yanling and Lena gave Tricia some stamps in the ratio 4 : 1. As a result, Tricia had $2\frac{1}{2}$ times as many stamps as before and Yanling had 300 stamps more than Lena in the end.
How many stamps did Lena give to Tricia?

Do not write in this space

Ans: _____ [5]

17 The average length of 6 ropes was 80 cm. The average length of 4 of the ropes A, B, C and D was 15 cm more than the average length of the remaining 2 ropes E and F.

(a) Find the average length of ropes E and F.
Give your answer in metres.

(b) If Rope E had been 18 cm shorter and Rope F had been 12 cm longer, they would have been of the same length.
Find the actual length of Rope E.

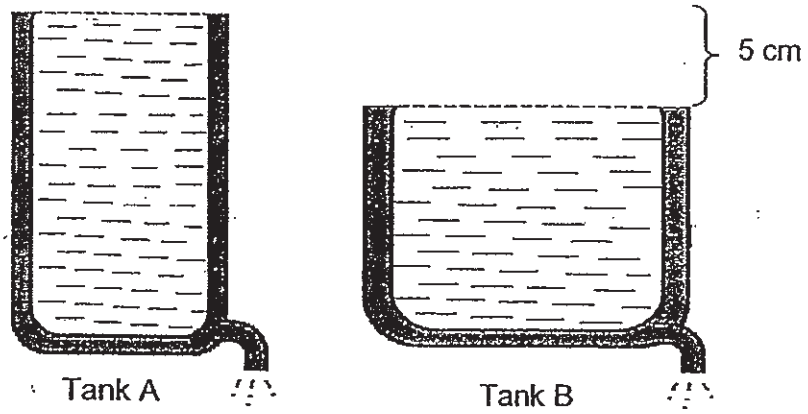
Do not write in this space

Ans: (a) _____ [3]

(b) _____ [2]

18 The figure below shows 2 completely-filled tanks being emptied of the water from 2 different taps.

Do not write in this space



The taps at Tank A and Tank B were turned on at 7 a.m. and 8.30 a.m. respectively, until both the tanks were completely empty. At 11 a.m., the water level in both the tanks was the same. At 12.30 p.m., Tank B was completely empty and Tank A was only completely empty at 1 p.m. If the rate of the flow of water from each tap was constant throughout, what was the height of Tank A?

Ans: _____ [5]

END OF PAPER
HAVE YOU CHECKED YOUR WORK?

Answer Ke

EXAM PAPER 2010

SCHOOL : HOKKIEN PRIMARY
SUBJECT : PRIMARY 6 MATHEMATICS

TERM : PERLIMINARY

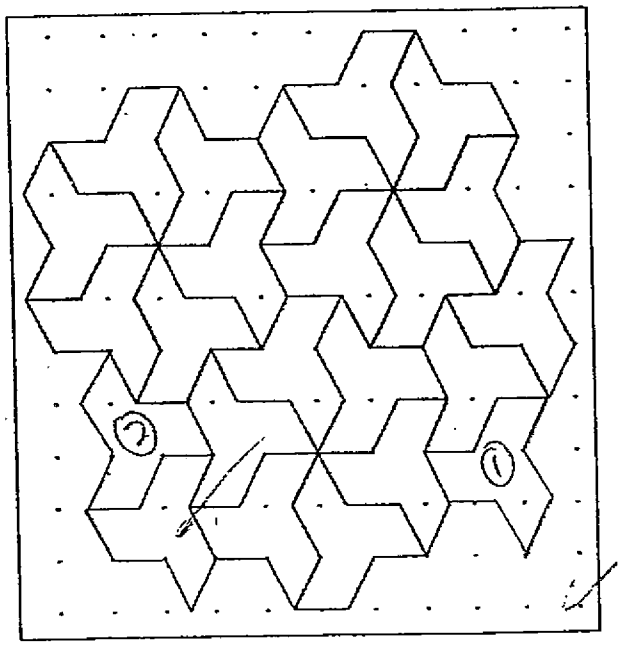
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
4	3	1	3	1	2	4	1	4	3	2	3	2	3	1

16)0.805 **17)81** **18)20** **19)180** **20)607cm**

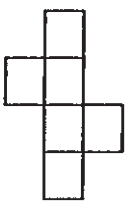
21)33p +2 **22)$1.70** **23)(p/2)** **24)24** **25)6.55p.m.**

26)35% **27)7.7m/min** **28)127°** **29)216sweets**

30)



Paper 2

1)4u – 2u = 2u 2u→60 1u→30 2u + 3u + 4u = 9u 9u→$270	2)50 x 1½ = 75 70 x ½ = 35 35 + 75 = 110 110/2 = 55km/h
3)8u→640 1u→80 10u→800g	4)180° – 40° = 140° 140° ÷ 2 =70° 180° – 70° = 110°
5)5 +0.50 =5.50 20÷5.50 =3 3 x 5.50 =16.5 20 – 16.5 = 3.5 3 + (3x6) = 3 + 18 = 21 muffins	6)$2.70 – $1.50 = $1.20 $17.50 – $9.10 = $8.40 $8.40÷$1.20 =$7 $(7x1.50) + $17.50 = $28 He brought along $28
7)180° – 80° – 65° = 35° 180° – 65° – 35° = 80° (∠M) 180° – 80° – 35° =65° 90° – 65° = 25° (∠n) 80° + 25° = 105° The sum is 105°	8)a)50% - 30% = 20% 20%÷2 =10% b)75% - 30% - 30% =15% 15%/100% x 9000 = $1350
9)6u – 4u =2u 2u→12 1u→6 5u→30 blue pens	10)72 – (4x8) = 40 3 + 3 +2 + 2 =10 40÷10 =4 4 x 3 =12 4 x 2 = 8 12 x 8 x 4 = 384$_3$ The volume is 384cm$_3$
11)a)Perimeter of semi-circle →½ x 3.14 x 50 = 78.5 78.5 + 19 + 19 + 26 = 142.5 b)50cm – 26cm = 24cm 24÷2 = 12cm 40 – 25 =15cm Area of triangle→½ x 15 x 12 = 90 90 x 2 = 180 26 x 15 = 390 Area of semi-circle→½x3.14x25x25 =981.25 Total area→981.25+180+390=1551.25cm$_2$	12)a)  b)14 c)10104

13)8 x 4 =32 ¼ x Π x 8 x 8 =16Π ¼ x Π x 4 x 4 = 4Π 16Π - 4Π = 12Π 12Π - 32 ≈5.7 The difference in area is 5.7cm2	14)a)180° – 18 ° – 62° = 100° 180° – 100° = 80° 80° + 80° =160° 180° – 160° = 20° ∠ X is 20° b)180° – 18° – 20° – 62° = 80° ∠y is 80°
15)45 ÷ ¾ = 60 225 – 45 =180 180÷ 60 =30 225÷ 3 = 75 The car was travelling at 75km/h	16)2 x 2½ = 5 300÷6 = 50 50 x 3 =150 Lena gave Tricia 150 stamps
17)a)80 x 6 =480 15 x 4 =60 480 – 60 = 420 420÷6 =70 70 x 2 =140 (E and F) 140÷2 = 70 70cm = 0.7m b)140 – 18 – 12 = 110 110÷ 2 = 55 55 + 12 + 18 = 85cm Rope E is 85cm long	18)45cm