



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

2009
数学 MATHEMATICS
PAPER 1
BOOKLET A

Total Time for Booklets A and B: 50 min

INSTRUCTIONS TO CANDIDATES

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

This booklet consists of 6 printed pages.

School : _____
Name : _____ ()
Class : _____

PARENT'S SIGNATURE:

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 In 9 873 824, the digit 7 stands for $7 \times$ _____

- (1) 100
- (2) 1000
- (3) 10 000
- (4) 100 000

2 Express $\frac{1}{8}$ of 4 kg in grams.

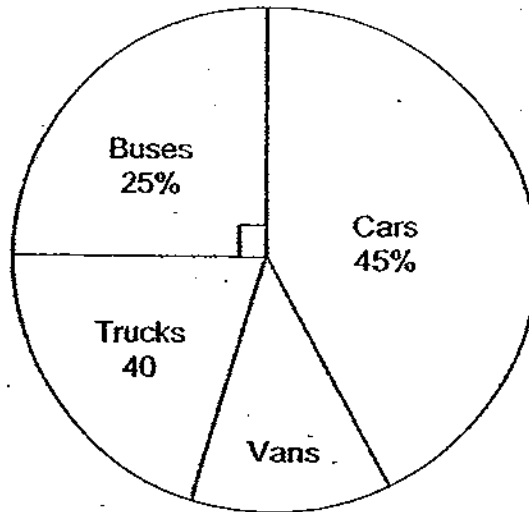
- (1) 400 g
- (2) 500 g
- (3) 600 g
- (4) 700 g

3 Xueling is 12 years 9 months old. Janet is 2 years 8 months older than she. What is Janet's age?

- (1) 14 yr 5 mth
- (2) 14 yr 7 mth
- (3) 15 yr 5 mth
- (4) 15 yr 7 mth

The pie chart below shows the number of different types of vehicles in a car park.

Use it to answer questions 4 and 5.



4 There are twice as many trucks as vans. How many vans are there?

- (1) 20
- (2) 30
- (3) 50
- (4) 80

5 Assuming that there are 50 buses. Find the total number of cars and buses in the car park.

- (1) 40
- (2) 140
- (3) 200
- (4) 280

6 Which of the following is not a symmetric figure?



7 4 friends paid \$165 each for renting a car for 10 days. What was the cost of renting the car per day?

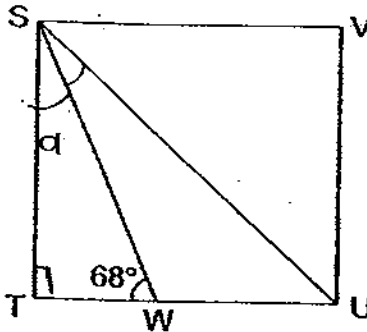
- (1) \$16.50
- (2) \$41.25
- (3) \$66.00
- (4) \$412.50

8 Evaluate $24 + (47 - 5) \div 6 - 4$.

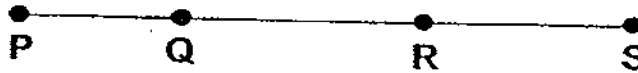
- (1) 7
- (2) 27
- (3) 33
- (4) 45

9. Jeremy has 38% as much money as Ling Ling. Ling Ling gives Jeremy \$62. Then both of them have the same amount of money. How much does Ling Ling have at first?
- (1) \$76
 - (2) \$100
 - (3) \$138
 - (4) \$200
10. A rectangle has a length of x cm and a breadth of y cm. What is its perimeter?
- (1) $(x + y)$ cm
 - (2) $(x - y)$ cm
 - (3) $(2x + 2y)$ cm
 - (4) xy cm
11. The average height of 3 girls is equal to half the height of a woman. If the height of the woman is 160 cm, what is the average height of the 3 girls and the woman?
- (1) 60 cm
 - (2) 80 cm
 - (3) 100 cm
 - (4) 120 cm
12. Mrs Sitoh has just enough flour to bake either $12p$ muffins or $9r$ pies. If she has already baked 40 muffins and $3r$ pies, how many more muffins can she still bake?
- (1) $6r - 40$
 - (2) $8p - 40$
 - (3) $9r - 40$
 - (4) $12p - 40$

- 13 In the figure below, not drawn to scale, STUV is a square and $\angle TWS = 68^\circ$. Find $\angle USW$.



- (1) 22°
 (2) 23°
 (3) 32°
 (4) 34°
- 14 The points P, Q, R and S are on a straight line. The ratio of the length of PQ to the length of QR is 2 : 3. The ratio of the length of PR to the length of RS is 2 : 1. What is the ratio of the length of QR to that of PS?



- (1) 1 : 3
 (2) 1 : 5
 (3) 2 : 5
 (4) 3 : 5
- 15 Parcel A is $3\frac{1}{4}$ times as heavy as Parcel B. Parcel C is half as heavy as Parcel A. Find the ratio of the mass of Parcel B to the mass of Parcel C.
- (1) 4 : 13
 (2) 8 : 13
 (3) 13 : 4
 (4) 13 : 8



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2009
数学 MATHEMATICS
PAPER 1
BOOKLET B

Total Time for Booklets A and B: 50 min

INSTRUCTIONS TO CANDIDATES

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

This booklet consists of 6 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 Write four million, eight hundred and forty in numerals.

Ans: _____

17 What fraction of 2 hours is 45 minutes?
(Express your answer in the simplest form.)

Ans: _____

18 Express $2\frac{3}{7}$ as a decimal, correct to 2 decimal places.

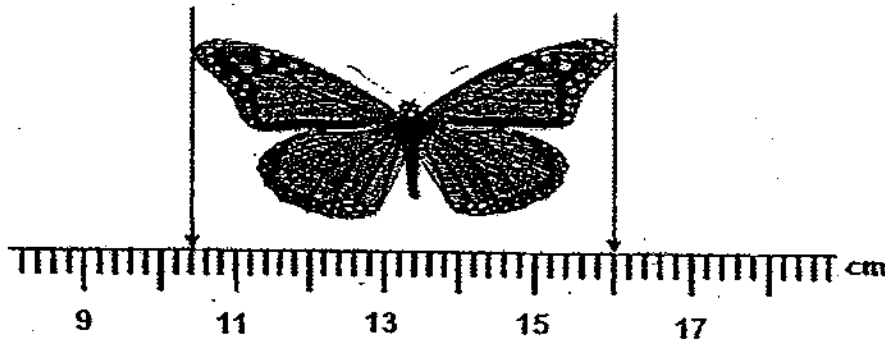
Ans: _____

19 Leon started playing games on his computer at 1.45 p.m. and ended at 4.38 p.m. How long did he play games on his computer?

Ans: _____ h _____ min

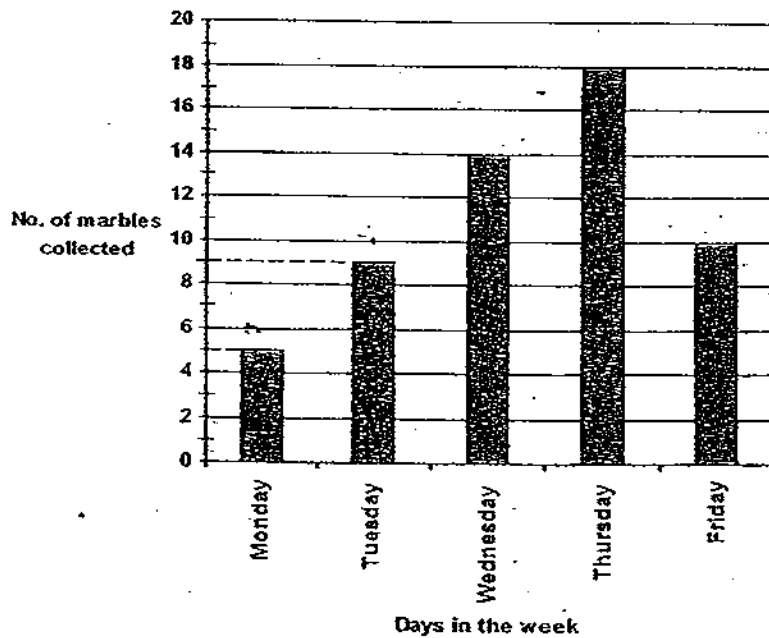
Do not write in this space

20 What is the wing span of the butterfly shown below?



Ans: _____ cm

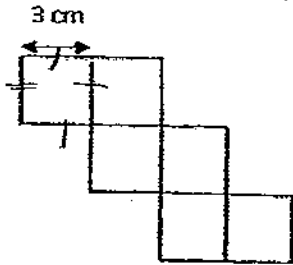
21 The graph below shows the number of marbles Jay collected in a week.



Express the number of marbles collected on Wednesday as a percentage of the total number of marbles collected from Monday to Friday.

Ans: _____ %

- 22 The figure shows the net of a cube. Find its volume.



Ans: _____ cm^3

- 23 Evaluate $9 - 2n + 11 + 8n$.

Ans: _____

- 24 A photocopier can print one set of worksheets in 15 minutes. How many such sets of worksheets can the same photocopier print in 3 hours?

Ans: _____

- 25 Ramli spent 60% of his money on a pair of soccer boots and the rest of his money on a soccer ball. If the pair of soccer boots cost \$30 more than the soccer ball, how much money did Ramli spend in all?

Ans: \$ _____

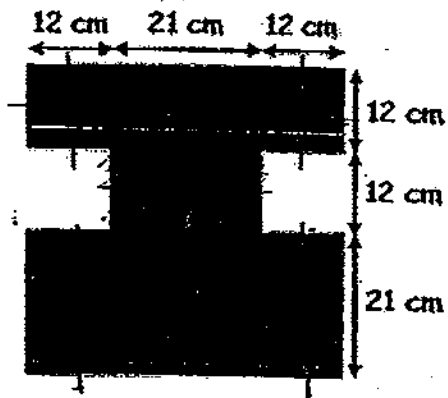
Total marks for questions 16 to 25

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 Find the perimeter of the figure shown below.



Ans: _____ cm

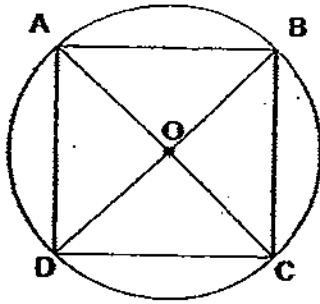
27 20 pails are needed to fill $\frac{2}{5}$ of a tank. How many pails are needed to fill $\frac{1}{2}$ of the tank?

Ans: _____

28 At a sale, a T-shirt and a blouse cost \$20. Two T-shirts and three blouses cost \$49. How much does a blouse cost?

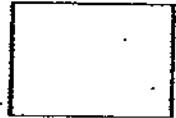
Ans: \$ _____

- 29 A square cardboard ABCD is pasted on a circular piece of paper. O is the centre of the circle. The diameter of the circle is 14 cm. Find the area of the paper not covered by the square cardboard.
 (Take $\pi = \frac{22}{7}$)



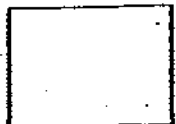
Do not write in this space

Ans: _____ cm²



- 30 Ahmad wrote the numbers 1 to 99 on cards for a party game. How many times did he write the digit '9'?

Ans: _____



END OF PAPER



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2009
数学 MATHEMATICS
PAPER 2

Total Time for Paper 2: 1 h 40 min

INSTRUCTIONS TO CANDIDATES

1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Show your working clearly as marks are awarded for correct answers
5. 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.

Do not write in this space

(10 marks)

- 1 The table below shows the number of books read by some students during the holidays.

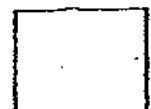
Number of students	8	13	9	11	9
Number of books	0	1	2	3	4

What is the average number of books read by the students?

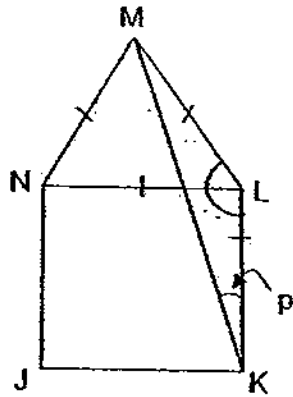
Ans: _____



- 2 Construct a rhombus EFGH whose side $EF = 6$ cm and $\angle FGH = 100^\circ$. Label the rhombus clearly.



- 3 In the figure below, not drawn to scale, JKLN is a square and LMN is an equilateral triangle. Find $\angle p$.



Do not write in this space

Ans: _____

- 4 Tap A can fill a tank completely in 6 minutes. Tap B can fill the same tank completely in 3 minutes. How long will it take to fill the tank completely if both taps are turned on at the same time?

Ans: _____ min

- 5 The ratio of Ming's mass to Devi's mass is 5 : 6. If Ming's mass is increased by 5 kg and Devi's mass is decreased by 1 kg, then they will have the same mass. What is Ming's original mass?

Ans: _____ kg

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.

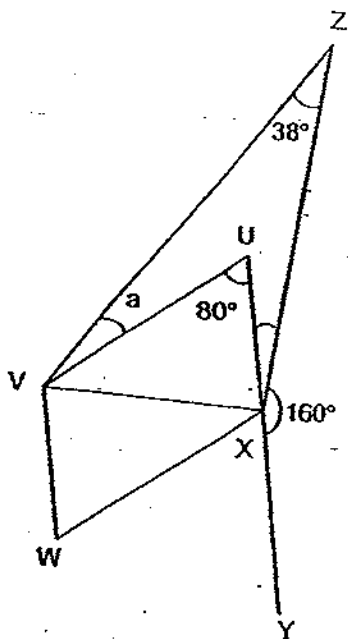
Do not write in this space

(50 marks)

- 6 Dennis wanted to buy a toy aeroplane which cost \$44.10. He decided to save \$2.10 a day to buy it. If the price of the toy aeroplane decreased to \$39.90 at a sale, how much did he need to save each day so that he could buy the toy aeroplane after saving for the same number of days?

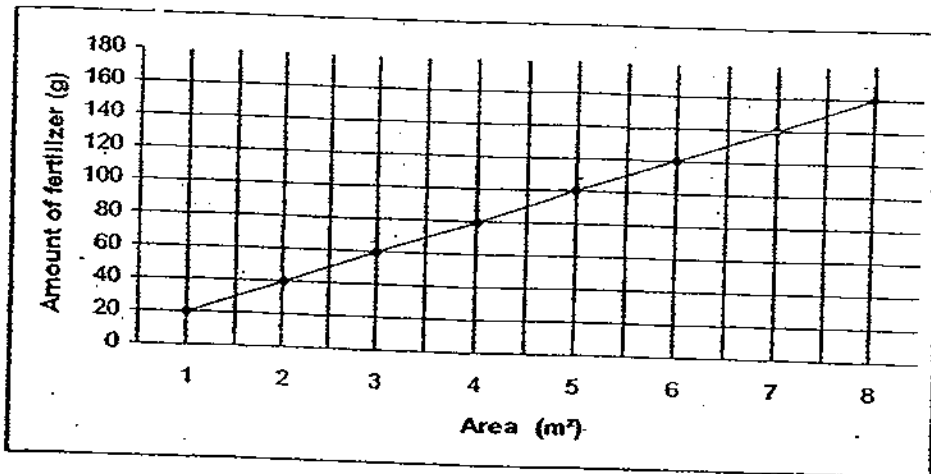
Ans: _____ [3]

- 7 In the figure below, not drawn to scale, UVWX is a parallelogram. UXY is a straight line. Find $\angle a$.



Ans: _____ [3]

- 8 The line graph below shows the amount of organic fertilizer needed per square metre of land.



Do not write in this space

- (a) How much fertilizer is needed for a piece of land of area 7 m²?
- (b) School XYZ has an organic farm which measures 30 m by 40 m. If each gram of fertilizer costs 5¢, what is the cost of the fertilizer needed for the school's organic farm?

Ans: (a) _____ [1]

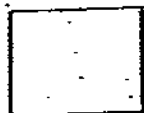
(b) _____ [2]



- 9 Rope A is $\frac{3}{4}$ as long as Rope B. Rope B is $\frac{8}{11}$ as long as Rope C.
Rope A is 25 cm shorter than Rope C. What is the total length of the three ropes?

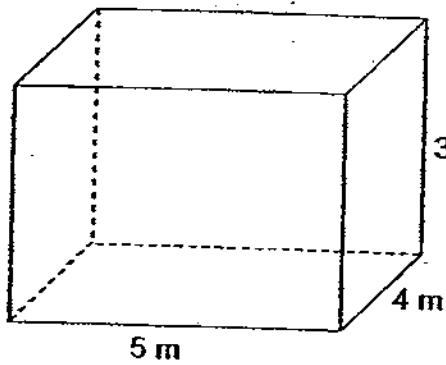
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this space

Ans: _____ [3]

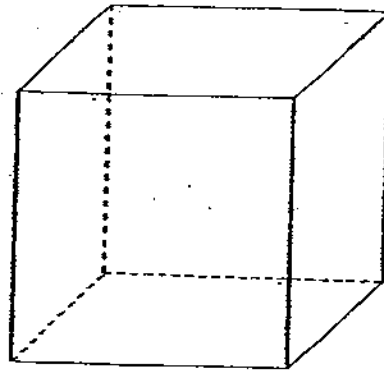
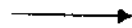


- 10 A rectangular Tank A, 5 m by 4 m by 3 m, is half filled with water. All the water in Tank A is then transferred into a cubical Tank B of side 4 m. What is the height of the water level in Tank B?
(Give your answer in metres, correct to 1 decimal place.)

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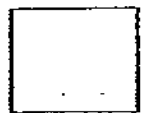


Tank A



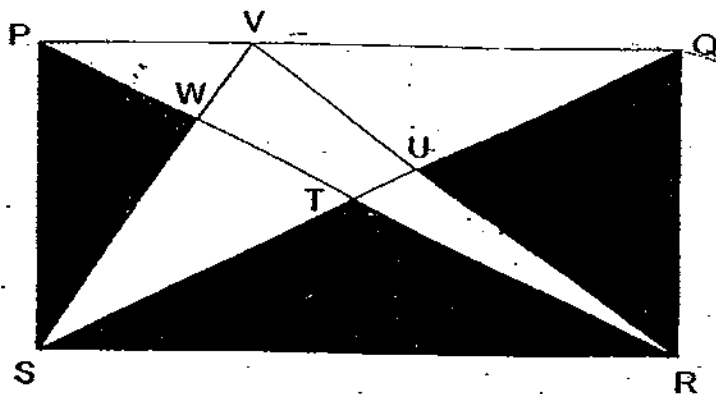
Tank B

Ans: _____ [3]



- 11 In the figure below, not drawn to scale, PQRS is a rectangle with a length of 45 cm and a width of 22 cm. The area of the quadrilateral TUVW is 75 cm^2 . Find the ratio of the shaded area to the unshaded area.

Do not write in this space



Ans: _____ [4]



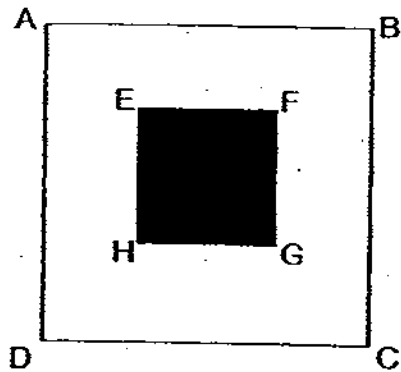
- 12 3 pupils, Hui, Siti and Elis, shared a box of cards. Hui took $\frac{1}{5}$ of the total number of cards and another 12 cards. Siti took $\frac{1}{3}$ of the remaining cards in the box and another 13 cards. Elis took the last 27 cards in the box. How many cards were there in the box at first?

Do not write in this space

Ans: _____ [4]

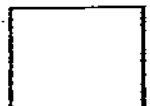


- 13 The figure below shows 2 squares, ABCD and EFGH. The length of each square is a whole number. The area of the unshaded part is 28 cm^2 . What is the perimeter of the square ABCD?

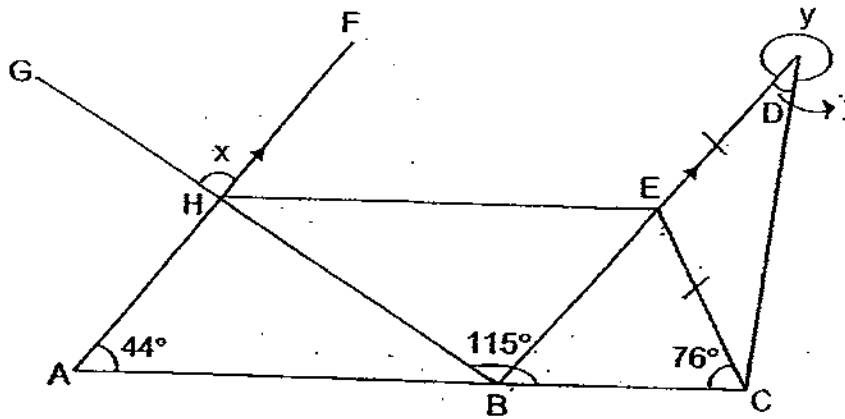


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Ans: _____ [4]



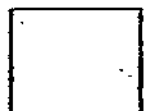
- 14 In the diagram below, not drawn to scale, ACEH is a trapezium. AF, BD and GB are straight lines. CDE is an isosceles triangle. Given that $\angle GBC = 115^\circ$, find $\angle x$ and $\angle y$.



Do not write in this space

Ans: $\angle x$: _____ [2]

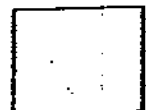
$\angle y$: _____ [3]



- 15 A car and a coach travelled from Town A to Town B. The coach left Town A at 0648 and it took 5 hours to reach Town B. The car started 30 minutes later than the coach and it took 4 hours to reach Town B. At what time did the car catch up with the coach?

Do not write in
this space

Ans: _____ [4]



- 16** At a fashion school, 70% of the models were Singaporeans and the rest were Malaysians. 75% of the Singaporean models and $\frac{2}{3}$ of the Malaysian models were female. If there were 1200 models at the fashion school, how many male models were there at the school?

Do not write in this space

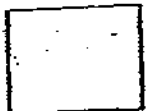
Ans: _____ [4]



- 17 In a school science fair, there were exhibits from Primary 4 to Primary 6. Altogether 25 exhibits came from Primary 5 and 6. If 16 exhibits were not from Primary 6 and 15 exhibits were not from Primary 5, how many exhibits were there altogether?

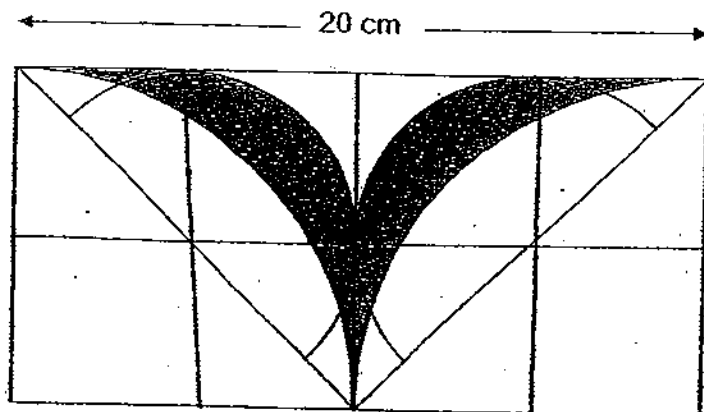
Do not write in this space

Ans: _____ [5]



- 18 The figure shows a rectangle with 2 identical semicircles and quadrants within it. Find the area of the shaded part. (Take $\pi = 3.14$)

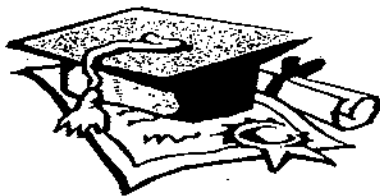
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Ans: _____ [5]



**END OF PAPER
CHECK YOUR WORK CAREFULLY!**



ANSWER SHEET

EXAM PAPER 2009

SCHOOL : HOKKIEN PRIMARY
SUBJECT : PRIMARY 6 MATHEMATICS

TERM : SA2

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

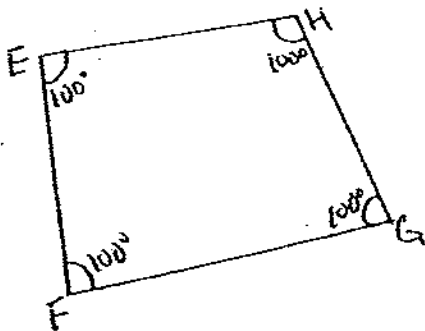
16)4000840 17)3/8 18)2.43 19)2h 53min 20)5.6cm

21)25% 22)27cm³ 23)20+6n 24)12 set of worksheets

25)\$150 26)228cm 27)25 pails 28)\$9 29)56cm²

30)20 times

Paper2

<p>1) $8 \times 0 = 0$ $13 \times 1 = 13$ $9 \times 2 = 18$ $11 \times 3 = 33$ $9 \times 4 = 36$ $36 + 33 + 18 + 13 = 100$ $8 + 13 + 9 + 11 + 9 = 50$ $100 \div 50 = 2$ books.</p>	<p>2) </p>
<p>3) $\angle MLP \rightarrow 90^\circ + 60^\circ = 150^\circ$ $\angle KML \rightarrow \angle P$ $= 180^\circ - 150^\circ$ $= 30^\circ \div 2 = 15^\circ$</p>	<p>4) A=6 min \rightarrow full 1 min \rightarrow 1/6 B=3 min \rightarrow full 1 min \rightarrow 1/3 $1/3 + 1/6 = 1/2 \rightarrow$ 1 min 1 min \times 2 = 2 min</p>

<p>5) M : D 5 : 6 5kg+1kg=6kg M→5x6kg=30kg</p>	<p>6) \$44.10 ÷ \$2.10 = \$21 \$39.90 ÷ \$21 = \$1.90</p>
<p>7) $\angle UVX + \angle VXU = 180^\circ - 80^\circ = 100^\circ$ $\angle UXZ = 180^\circ - 160^\circ = 20^\circ$ $\angle a \rightarrow 180^\circ - 20^\circ - 100^\circ - 38^\circ = 22^\circ$</p>	<p>8) a) 140g b) 1m² → 20g 1200m² → 24000g 2400 x 5¢ = \$1200</p>
<p>9) 5u → 25 1u → 5 11u + 8u + 6u = 25u 25u → 125cm</p>	<p>10) Volume of water in tank A → 5x4x3 = 60 Half filled with water → 60 ÷ 2 = 30 Height of water level in tank B is → 30 ÷ 4 = 1.875 ≈ 1.9m</p>
<p>11) 19:14</p>	<p>12) 2/3 remaining cards → 27 + 13 = 40 remaining cards → 40 / 2 x 3 = 60 4/5 of number → 60 + 12 = 72 Total number → 72 / 4 x 5 = 90 The were 90 cards at first.</p>
<p>13) 32cm</p>	<p>14) $180^\circ - 115^\circ = 65^\circ$ $65^\circ + 44^\circ = 109^\circ$ $180^\circ - 109^\circ = 71^\circ$ $\angle X: 71^\circ$ $\angle HAB = \angle EBC = 44^\circ$ $\angle BEC \rightarrow 180^\circ - 44^\circ - 76^\circ = 60^\circ$ $\angle CED \rightarrow 180^\circ - 60^\circ = 120^\circ$ $\angle CDE \rightarrow 180^\circ - 120^\circ = 60^\circ \div 2 = 30^\circ$ $\angle y \rightarrow 360^\circ - 30^\circ = 330^\circ$</p>

<p>15)0918</p>	<p>16)$25\% \times 70\% = 17.5\%$ $\frac{1}{3} \times 30\% \rightarrow 10\%$ $10\% + 17.5\% = 27.5\%$ $27.5\% \times 1200 = 330$ There were 330 male models.</p>
<p>17)$2(p_4 + p_5 + p_6) = 25 + 16 + 15$ $= 56$ $(p_4 + p_5 + p_6) = 56 \div 2 = 28$</p>	<p>18)$\frac{1}{2} \times 3.14 \times 10 \times 10 = 157$ $157 \div 2 = 78.5$ $\frac{1}{2} \times 10 \times 10 = 50$ $78.5 - 50 = 28.5$ $\frac{1}{4} \times 3.14 \times 5 \times 5 = 19.625$ $5 \times 5 = 25$ $25 - 19.625 = 5.375$ $50 - 28.5 - 5.375 = 16.125$ $16.125 \times 2 = 32.25$ The area is 32.25cm²</p>

