



AI TONG SCHOOL

2009

SEMESTRAL ASSESSMENT 1

PRIMARY 6

MATHEMATICS
Paper 1
(Booklet A and B)

DURATION : 50 min

DATE : 14 May 2009

INSTRUCTIONS

Do not open the booklet until you are told to do so.

Follow all instructions.

Answer all questions.

You are not allowed to use a calculator.

Name : _____ ()

Class : Primary 6 ()

Marks:

Paper 1	40
Paper 2	60
Total	100

Parent's Signature: _____

Date : _____

Paper 1

Booklet A

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.

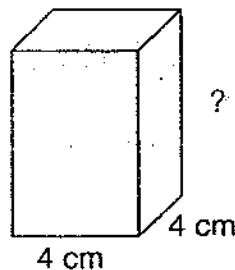
For each question, four options are given. One of them is the correct answer.

Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet. (20 marks)

1 $6.084 \times \underline{\hspace{2cm}} = 608.4$
What is the missing number?

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

2 The volume of the solid is 192 cm^3 . Find the height.



- (1) 12 cm
- (2) 24 cm
- (3) 44 cm
- (4) 48 cm

3 The table below shows the parking fees at a car park.

Parking Rates	
First 10 minutes	Free
Next 1 hour	\$1.00
Each additional 30 minutes or less	\$0.50

Mr Lim parked his car at the car park for $1\frac{1}{6}$ h.

Find the parking fees he had to pay.

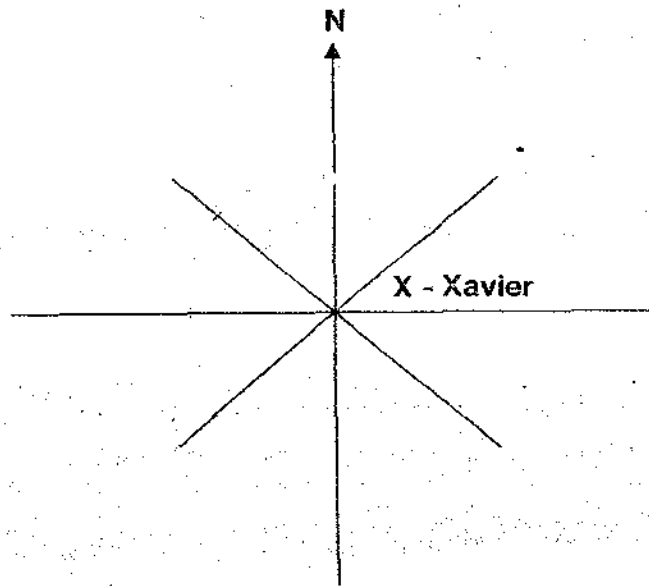
- (1) \$1.00
- (2) \$1.50
- (3) \$2.00
- (4) \$2.50

- 4 The table below shows the number of bookmarks made by some pupils. What is the missing number in the table below if the total number of bookmarks made is 20?

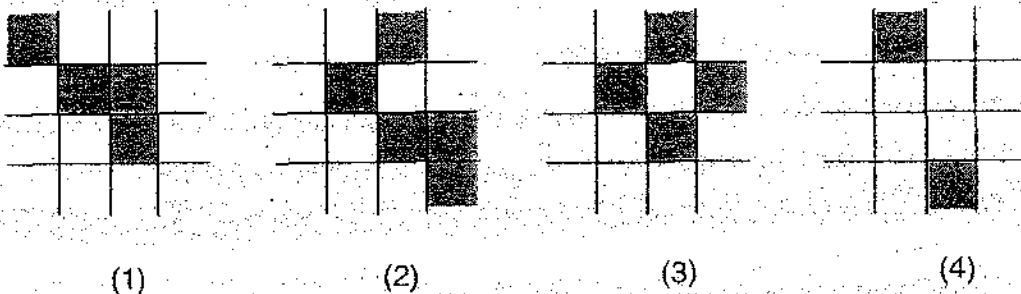
Number of Bookmarks made	0	1	2
Number of Pupils	2	?	6

- (1) 8
 (2) 9
 (3) 11
 (4) 17
- 5 Xavier is standing at the point marked X in the figure below. He is facing southwest. In which direction will he face if he turns 135° clockwise?

- (1) East
 (2) North
 (3) South-East
 (4) West

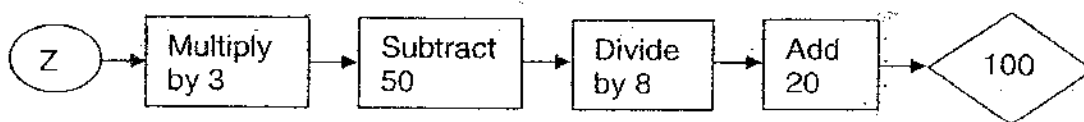


- 6 Four figures are given below. Which of them has a line of symmetry?



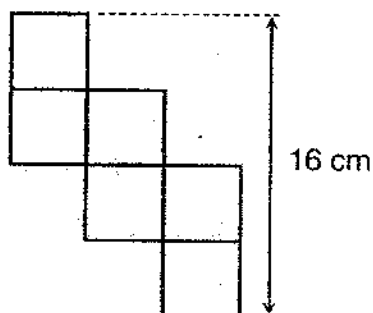
- 7 Su Pin drove from Changi Airport to Jurong East at an average speed of 90 km/h. How far did he travel in 15 minutes?
- (1) 22.5 km
 - (2) 40 km
 - (3) 67.5 km
 - (4) 1350 km
- 8 The ages of Peter and Ali are in the ratio 5 : 3 . Ali is 6 years younger than Peter. What is Peter's age ?
- (1) 5 years
 - (2) 8 years
 - (3) 10 years
 - (4) 15 years
- 9 A container was 95% filled with water. When 135 ml of water was poured out, the container was half full. How much water was left in the container?
- (1) 150 ml
 - (2) 255 ml
 - (3) 500 ml
 - (4) 675 ml
- 10 Shah is x years old. Joe is 5 years younger than he. What is their average age?
- (1) $\frac{(5+x)}{2}$ years old
 - (2) $\frac{(x-5)}{2}$ years old
 - (3) $\frac{(2x-5)}{2}$ years old
 - (4) $\frac{(2x+5)}{2}$ years old

- 11 Find the value of Z.



- (1) 20
- (2) 60
- (3) 195
- (4) 230

- 12 The figure below shows the net of a cube. What is the volume of the cube?



- (1) 64 cm^3
- (2) 96 cm^3
- (3) 512 cm^3
- (4) 4096 cm^3

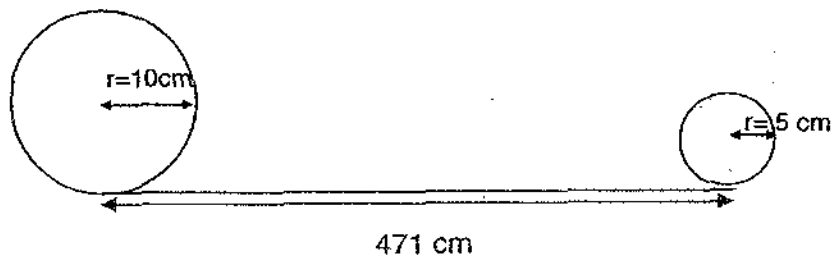
- 13 Ting Wei jogged at a constant speed of 10 km/h to cover 30 km. She covered the remaining 6 km at a constant speed of 6 km/h. What was her average speed for the whole journey in km/h?

- (1) 8
- (2) 9
- (3) 12
- (4) 18

- 14 The ratio of the number of men to the number of women in a restaurant is 5 : 4. The ratio of the number of children to the number of women is 2 : 3. If there are 70 people altogether, how many children are there?

- (1) 10
- (2) 14
- (3) 16
- (4) 28

- 15 Each wheel takes 1 second to make a revolution. The 2 wheels move towards each other. How long will it take for the 2 wheels to meet? The radius of each wheel is shown in the diagram. (Take π to be 3.14)



- (1) 5 s
- (2) 10 s
- (3) 15 s
- (4) 50 s

Booklet B

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)

16 Write *five million, four hundred and ten thousand and eight* in numerals.

Ans: _____

17 A school bus can carry 42 children. What is the minimum number of buses needed to carry 390 children?

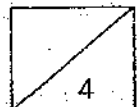
Ans: _____

18 Express $\frac{3}{8}$ as a percentage.

Ans: _____%

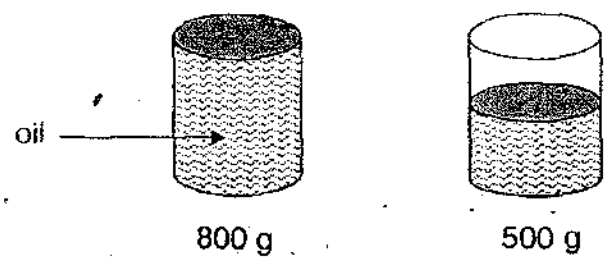
19 If I spend 80 cents a day, my pocket money will last me 18 days. How many days will my pocket money last if I were to spend \$1.20 a day?

Ans: _____



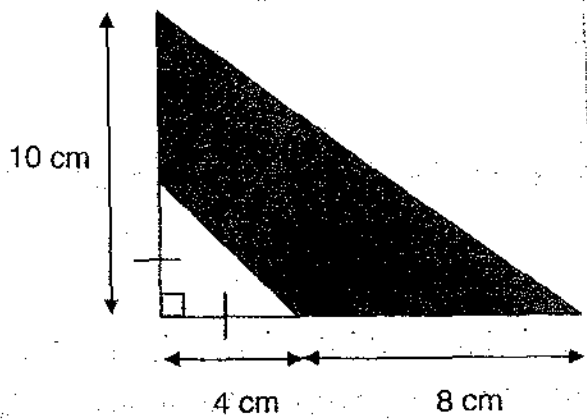
20

A container filled with oil weighed 800 g. When $\frac{1}{2}$ of the oil was used, the mass of the container with the remaining oil became 500 g. What would be the mass of the empty container?



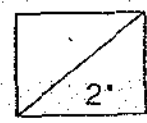
Ans: _____ g

21

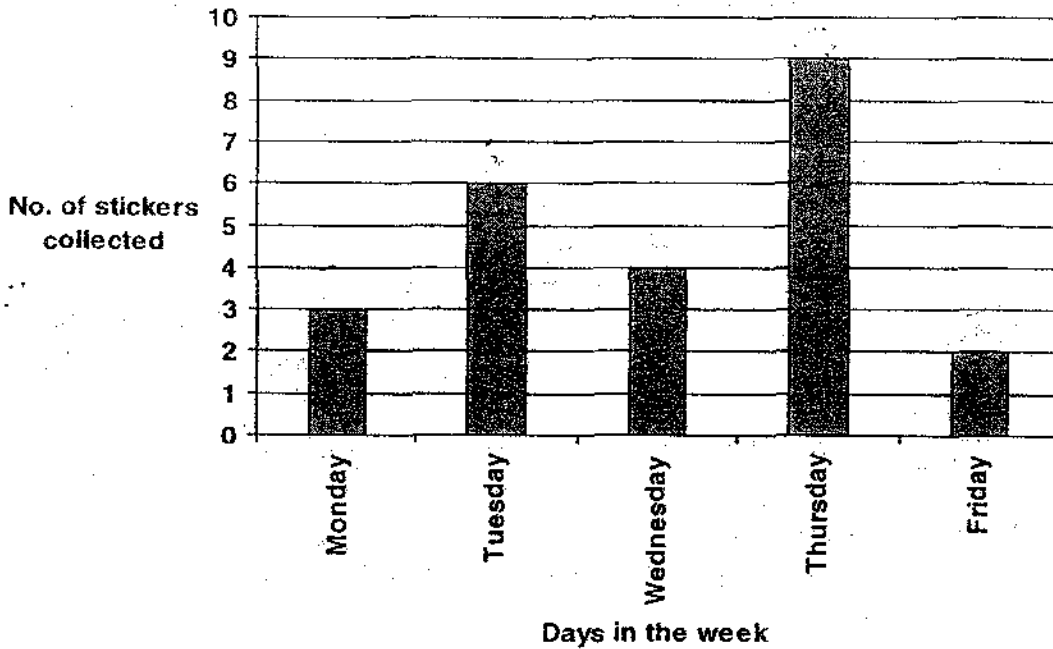


Find the area of the shaded part.

Ans: _____ cm²



22 The graph below shows the number of stickers Daniel collected during the week.



Express the number of stickers collected on Tuesday as a percentage of the total number of stickers collected from Monday to Friday.

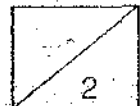
Ans: _____ %

23 In a certain country, telephone rates are as follow:

First 2 minutes	Each additional minute
28 ¢	9 ¢

Find the cost of an 8-minute call.

Ans: \$ _____

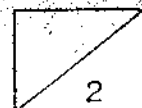


- 24 A shopkeeper gave a 15% discount on all items in his store.
How much would a customer pay for a camera that originally cost \$180?

Ans: \$ _____

- 25 Kelly sold 10 pens altogether. She sold 3 of them for \$5q and the rest at \$q each. How much money did she collect altogether in terms of q?

Ans: \$ _____



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)

- 26 Li Fang bought a blouse with $\frac{1}{3}$ of her money. She then used $\frac{1}{8}$ of the remainder to buy 2 pairs of socks. What fraction of her money did she spend on each pair of socks?

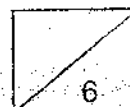
Ans: _____

- 27 A piece of cardboard, 2 m long and 70 cm wide, is cut into squares each of side 30 cm. What is the maximum number of such squares that can be cut from the cardboard?

Ans: _____

- 28 Adrian's mass is $\frac{3}{5}$ of Bryan's mass but Adrian is twice as heavy as Charlie. What is the ratio of Adrian's mass to Bryan's mass to Charlie's mass?

Ans: _____

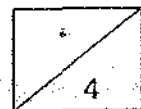


- 29 Kranjit paid \$4.30 for 1 apple, 4 oranges and 1 pear. The cost of a pear and an orange was \$1.30. The cost of an orange and an apple was \$1.50. Find the cost of an orange.

Ans: \$ _____

- 30 Sandy has 42 coins in her purse. The ratio of the number of 10-cent coins to the number of \$1 coins is 5 : 9. How much money does she have in her purse?

Ans: \$ _____





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2009

SEMESTRAL ASSESSMENT 1

PRIMARY 6

MATHEMATICS
Paper 2

DURATION : 1 h 40 min

DATE : 14 May 2009

INSTRUCTIONS

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

Name : _____ ()

Class : Primary 6 ()

Marks:

Paper 2	60
---------	----

Parent's Signature: _____

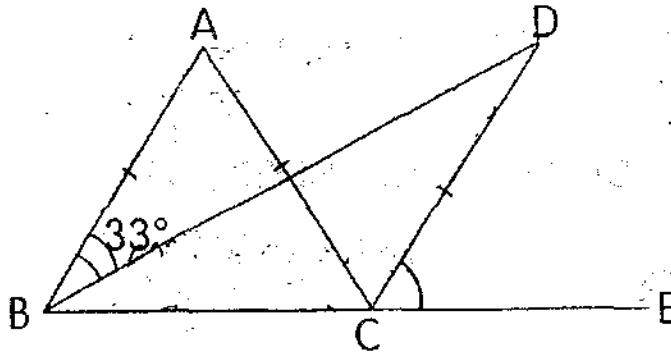
Date : _____

Paper 2

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)

- 1 The figure below is not drawn to scale. ABC is an equilateral triangle. BCD is an isosceles triangle and BCE is a straight line. Find $\angle DCE$.



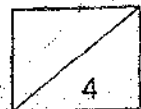
Ans: _____

- 2 a) In the space below, draw a triangle ABC in which $AB = 8$ cm, $AC = 4$ cm and $\angle CAB = 120^\circ$. The line AB has been drawn for you. [1]



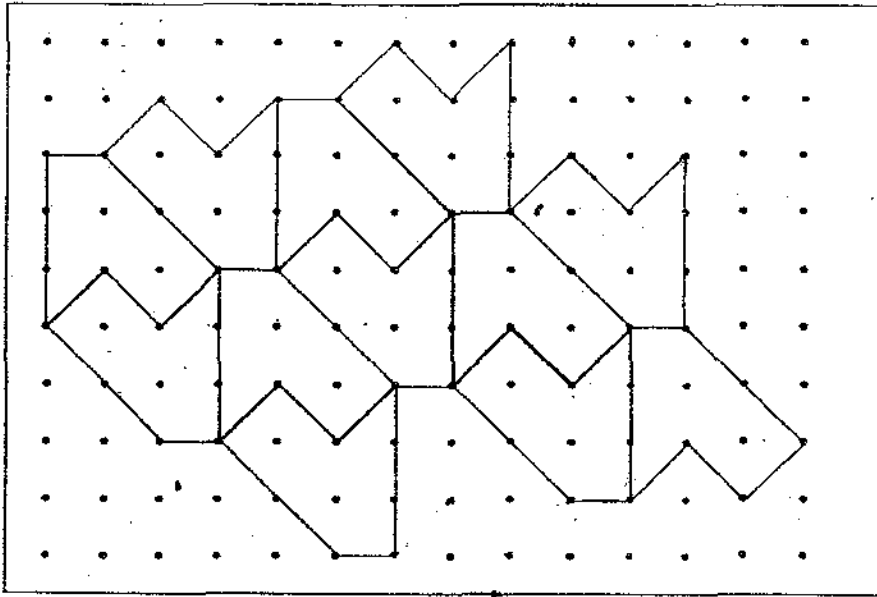
- b) Measure and write down the length of BC

Ans: (b) _____ cm



14

- 3 The pattern in the box shows part of a tessellation.



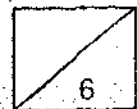
Extend the tessellation by drawing **two** more unit shapes in the space provided in the box.

- 4 The ratio of Peter's age to Queenie's age is 4 : 3. In 8 years' time, the sum of their ages will be 86. What is Peter's age now?

Ans: _____

- 5 The cost of a VCD player is 60% of the cost of a hi-fi set. The hi-fi set costs \$120 more than the VCD player. What is the total cost of the two items?

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)

- 6 A certain number of chairs can be arranged such that there are exactly 13 chairs per row. If the same number of chairs is arranged in rows of 10 chairs each, there will be 5 more rows and 4 chairs left over. How many chairs are there altogether?

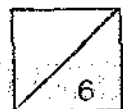
Ans: _____ [3]

- 7 The table below shows the number of fruits in a shop. One of the numbers has been erased.

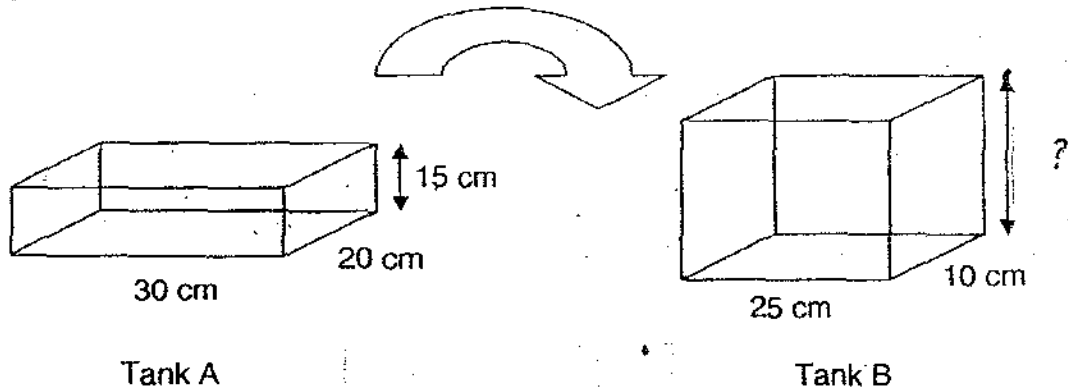
Type of fruit	Number of fruits
Pear	89
Mango	84
Star fruit	?
Water melon	52

If $\frac{1}{4}$ of the total number of fruits is star fruit, what is the total number of fruits in the shop?

Ans: _____ [3]



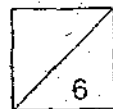
- 8 Tank A measuring 30 cm by 20 cm by 15 cm was half-filled with water. When all the water in Tank A was poured into Tank B, Tank B was only $\frac{2}{5}$ full. What is the height of Tank B if its base measures 25 cm by 10 cm?



Ans: _____ [3]

- 9 The petrol tank of Su Min's car was 70% empty. He went to a petrol station and topped up 25 litres of petrol. When he reached home, the petrol tank was 70% full. Given that he used 5 litres of fuel to get home from the petrol station, find the capacity of the petrol tank.

Ans: _____ [3]



- 10 A cake shop sells cakes by their mass as shown in the table below.

Mass	Cost
First kg	\$4.00 per 200g
Every additional 100g or part thereof	\$1.50

How much will a 1.75 kg cake cost?

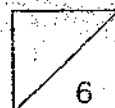
Ans: \$ _____ [3]

- 11 Kai Ling bought some stationery. $\frac{5}{8}$ of her money was spent on pens and the rest was spent on rulers and erasers. The number of rulers was twice as many as the number of erasers. The prices of the stationery were as follows:

Ruler	-	\$0.40 each
Eraser	-	\$0.70 each
Pens	-	\$1.25 each

She spent \$20 on the rulers. How much money did she spend on the pens?

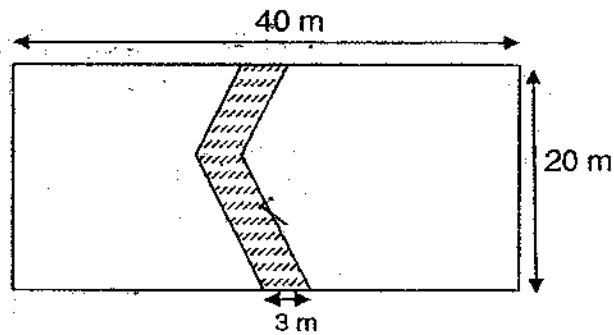
Ans: _____ [3]



18

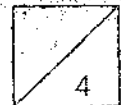
12 In the figure below, the shaded portion shows a 3-m wide cemented walkway in a rectangular field of length 40 m and breadth 20 m. Beside the walkway, the rest of the rectangular field is covered with grass.

- a) Find the area of the walkway.
- b) Find the area of the field that is covered with grass.



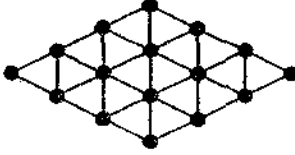


Ans: a) _____ [1]

b) _____ [3]

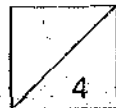


13 Ashley used dots and sticks to make the following patterns below. Complete the table.

Pattern Number	Number of Dots
 Pattern 1	4
 Pattern 2	9
 Pattern 3	16
Pattern 4	a) _____ [1]
Pattern 128	b) _____ [1]

c) If Ashley counted 256 dots in her final pattern, which pattern number had she made?

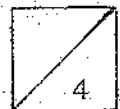
Ans: _____ [2]



- 14 If Ahmad and Ben work together, they can complete a job in 12 days. If Ahmad and Ben worked together for 3 days, followed by Ben who worked alone for the next 5 days, they can finish $\frac{5}{12}$ of the job. How many days will each of them need to complete the job if they were to work alone?

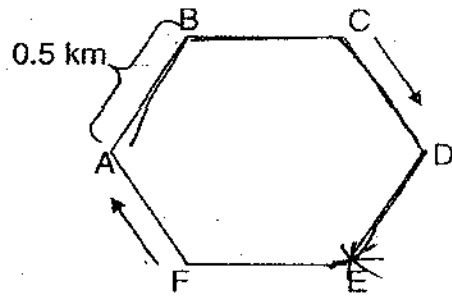
Ans: Ahmad - _____ [2]

Ben - _____ [2]



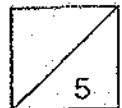
15 Tommy and Wilson jog on a hexagon track (6 equal sides) at 8 a.m. Tommy starts at point C while Wilson starts at point F. Both jog in the direction as shown by the arrows. Tommy's speed is 1.5 times Wilson's.

- (a) At which point will they meet?
 (b) If they meet at 8.20 am, find Tommy's speed?



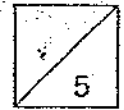
Ans: a) _____ [2]

b) _____ [2]



- 16 Chris had a sum of money. He spent 70% of it on a house and the rest on a car. One year later, the value of the house increased by $\frac{1}{7}$ of the original value, while the value of the car decrease by 25%. Chris then sold both his house and his car at these values and found that he had \$10 000 more than the original sum ~~of~~ money he had at first. How much did he spend on the car? _{of}

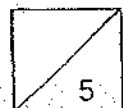
Ans: _____ [5]



23

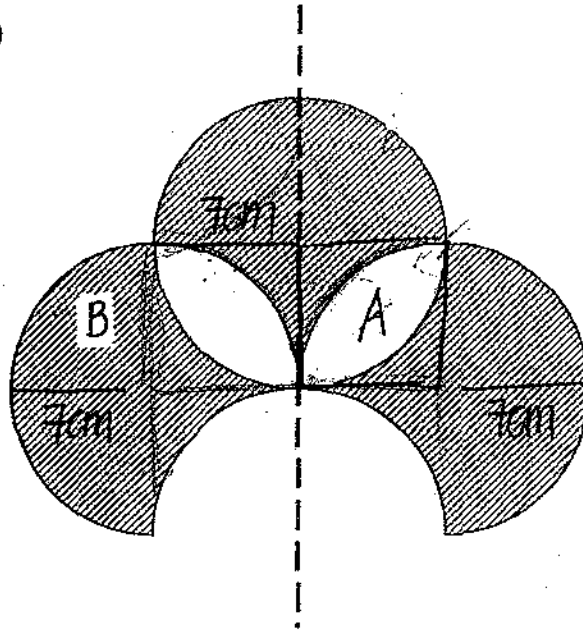
- 17 Allyson, Betty and Charlene shared to buy a watch for their father on his birthday. Allyson paid $\frac{1}{4}$ of the total share of Betty and Charlene. Betty paid $\frac{1}{5}$ the total share of Allyson and Charlene. If Charlene paid \$56 more than Betty, how much did the watch cost?

Ans: _____ [5]



18 Three incomplete circles of radius 7cm are shaded as shown below. The line of symmetry is indicated by the dotted line. Find the area of the shaded part.

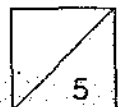
(Take $\pi = \frac{22}{7}$)



Ans: _____ [5]

End of Paper

--- CHECK YOUR WORK CAREFULLY ---



ANSWER SHEET

EXAM PAPER 2009

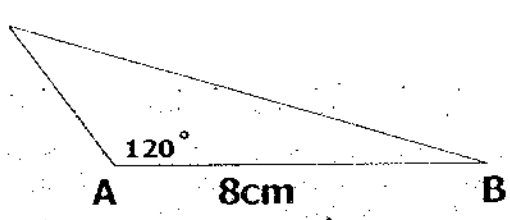
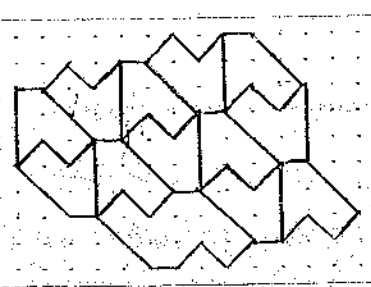
SCHOOL : AITONG PRIMARY SCHOOL
SUBJECT : PRIMARY 6 MATHEMATICS

TERM : SA 1

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

- 16) 5410008 17) 10 buses 18) 37.5% 19) 12 days 20) 200g
21) 52cm² 22) 25% 23) \$0.82 24) \$153 25) \$12q
26) 1/24 27) 12 squares 28) 6:10:3 29) \$0.75 30) \$28.50

Paper 2

<p>1) $27^\circ \times 2 = 54^\circ$ $180^\circ - 54^\circ = 126^\circ$ $180^\circ - 126^\circ = 54^\circ$</p>	<p>2) C</p>  <p>A triangle with vertices A and B. The angle at vertex A is 120°. The side opposite to vertex C is 8 cm.</p>
<p>3)</p>  <p>A complex geometric shape composed of several interlocking triangles, forming a larger, irregular polygon.</p>	<p>4) 40 years old</p>

<p>5)VCD-->60% H.F.S-->100% 100%-60%=40% 40%-->\$120 10%-->\$30 100%+60%=160% 160%-->\$480</p>	<p>6)left→(5x10)+4 =54 13-10=3 54÷3=18' 18x13=234 chairs</p>
<p>7)89+84+52=225 3u→225 1u→75 75x4=300 star fruits</p>	<p>8)30x20x15=9000 9000÷2=4500 4500÷2=2250 5u→11250 LxBxH=V 25x10xH=11250 250x45=11250 Ans:45cm</p>
<p>9)25L-5L=20L At first→30% full Now→70% full 70%-30%=40% 40%=20L 10%=5L 100%=50L</p>	<p>10)1.75kg→1750g 1000÷200=5 5x\$4=\$20 175-1000=750 \$1.50x8=\$12 \$12+\$20=\$32</p>
<p>11)\$17.50</p>	<p>12)a)shaded part→3x20=60m² b)Area of rectangle→40mx 20m=800m² 800m²-60m² =740m²</p>

<p>13)a) $5 \times 5 = 25$ b) $129 \times 129 = 16641$ c) 15</p>	<p>14) Ahmad = 20 days Ben = 30 days</p>
<p>15)a) point F b) 13.5 km/h</p>	<p>16) House $\rightarrow 70\%$ Car $\rightarrow 30\%$ $1/7 \times 70\% = 10\%$ $25/100 \times 30\% = 7.5\%$ Diff $\rightarrow 10\% - 7.5\% = 2.5\%$ $2.5\% \rightarrow \\$10000$ $1\% \rightarrow \\$10000 / 2.5\%$ $= \\$4000$ $30\% \rightarrow \\$4000 \times 30 = \\120000</p>
<p>17) $19u - 5u = 14u$ $14u \rightarrow \\$56$ $1u \rightarrow \\$4$ $30u \rightarrow \\$4 \times 30 = \\120</p>	<p>18) A $\rightarrow 22/7 \times 7 \times 7 = 154$ (unshaded parts) quarter $\rightarrow 154 \div 4 = 38.5$ Triangle $\rightarrow \frac{1}{2} \times 7 \times 7 = 24.5$ $38.5 - 24.5 = 14$ $14 \times 2 = 28$ $28 \times 2 = 56$ B $\rightarrow 22/7 \times 7 \times 7 = 154$ (circle) $154 - 56 = 98$ $98 \times 3 = 294 \text{ cm}^2$</p>