HENRY PARK PRIMARY SCHOOL
2015 SEMESTRAL EXAMINATION 1
MATHEMATICS
PRIMARY 6

PAPER 1
(BOOKLET A)

Name: _____ ( ) Parent's Signature

Class: Primary 6_____ _____

Marks:

Paper 1	Booklet A	20
	Booklet B	20
Paper 2		60
Total		100

Total Time for Booklets A and B: 50 min

Do not turn over this page 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.

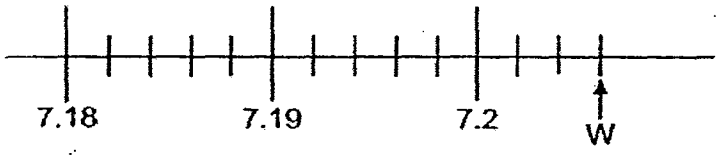
Booklet A:
Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.
For each of the questions, four options are given. One of them is the correct answer. Choose the correct answer (1, 2, 3 or 4). Shade the correct oval on the Optical Answer Sheet provided.

(20 marks)

1. There were 398 524 views to a certain YouTube video last week. Express this number to the nearest thousand.

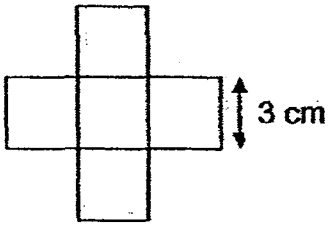
   (1) 390 000
   (2) 398 000
   (3) 399 000
   (4) 400 000 ( )

2. Part of a scale is shown below. What is the value of the reading at W?



   (1) 7.203
   (2) 7.206
   (3) 7.23
   (4) 7.26 ( )

3. The figure below is made up of 5 identical squares. The length of each side of a square is 3 cm.



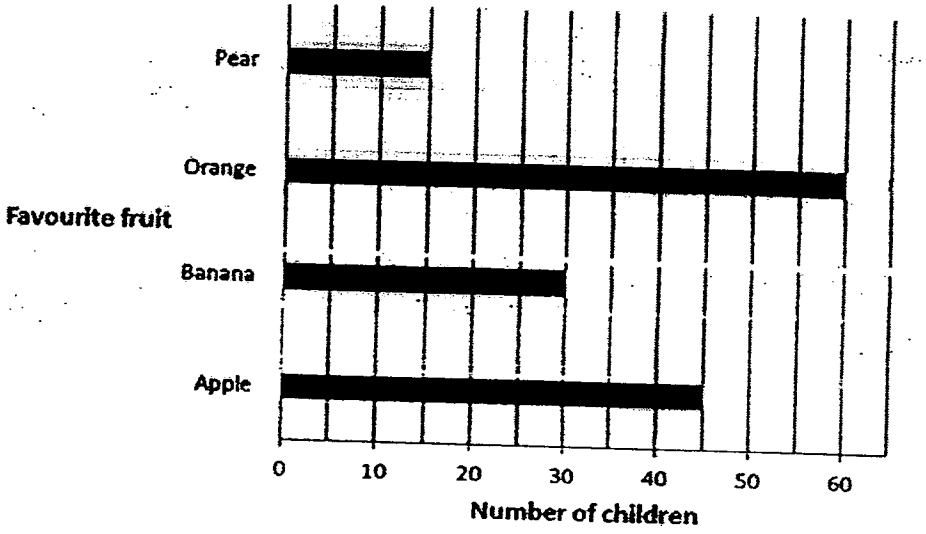
What is the total area of the figure?

(1) 15 cm^2
(2) 36 cm^2
(3) 45 cm^2
(4) 60 cm^2 ( )

4. Dr Tan's clinic is opened from 8.30 a.m. to 4.45 p.m. daily. How long is his clinic opened each day?

(1) 4 h 15 min
(2) 4 h 45 min
(3) 8 h 15 min
(4) 8 h 45 min ( )

5. A group of 150 children were asked to name their favourite fruit. The bar graph shows their choices and the number of children who chose each of the fruit.



What percentage of the children chose apple as their favourite fruit?

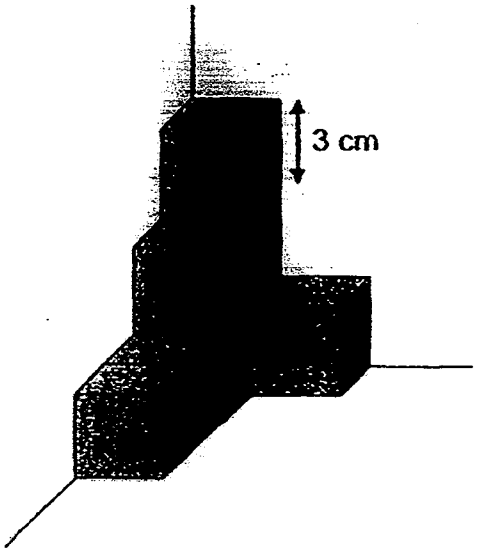
(1) 20%

(2) 30%

(3) 40%

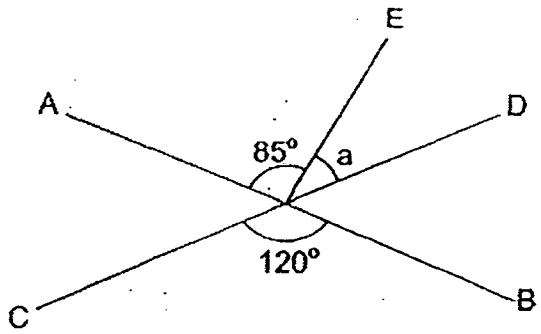
(4) 45% ( )

6. The solid below is made up of identical cubes. The length of each side of the cube is 3 cm. Find the volume of the solid.



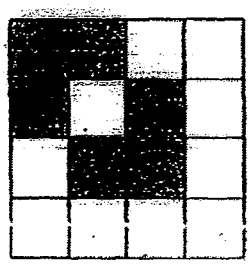
(1) 24 cm^3
(2) 72 cm^3
(3) 189 cm^3
(4) 216 cm^3 ( )

7. In the figure below, AB and CD are straight lines. Find ∠a.

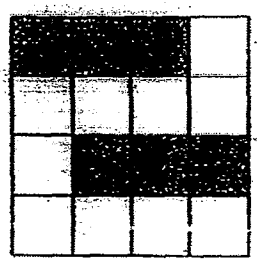


(1) 15°
(2) 35°
(3) 45°
(4) 60° ( )

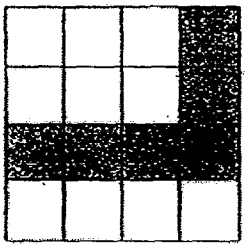
8. Each of the figure below is made up of 16 squares. Six of the squares in each figure are shaded. Which of the following is a symmetric figure?



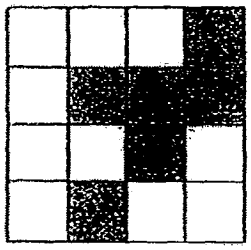
(1)



(2)



(3)



(4)

( )

9. Find the missing number in the box below.

6 : 21 = ? : 28

(1) 7
(2) 8
(3) 12
(4) 13

( )

10. What is the value of $27 - 3p$ when $p = 4$?

(1) 12
(2) 15
(3) 20
(4) 23

( )

11. Arrange the following fractions from the largest to the smallest:

$\frac{9}{7}$, $1\frac{2}{9}$, $\frac{5}{3}$

(1) $\frac{5}{3}$, $\frac{9}{7}$, $1\frac{2}{9}$

(2) $\frac{9}{7}$, $\frac{5}{3}$, $1\frac{2}{9}$

(3) $\frac{5}{3}$, $1\frac{2}{9}$, $\frac{9}{7}$

(4) $\frac{9}{7}$, $1\frac{2}{9}$, $\frac{5}{3}$ ( )

12. The average of 5 numbers is 16. When a number was added, the average became 17. What is the value of the number added?

(1) 15

(2) 16

(3) 22

(4) 33 ( )

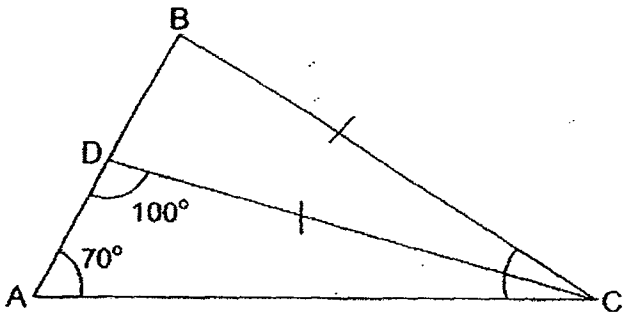
13. The overseas postage rates to two countries are shown below.

	Hong Kong	USA
1st 5kg	$30	$50
Every additional kg or part thereof	$5	$9

Sally sent a parcel weighing 5.5 kg to Hong Kong and a parcel weighing 7 kg to USA. How much did she pay altogether?

(1) $94.00
(2) $98.00
(3) $100.50
(4) $103.00 ( )

14. Triangle ABC below is not drawn to scale. BC is equal to DC. Find ∠ACB.



(1) 10°
(2) 20°
(3) 30°
(4) 40° ( )

15. A roll of ribbon has 5 different pictures on it. The pictures follow a repeated pattern as shown below.

Miss Chua cut out a length of ribbon containing a total of 111 pictures. How many pictures were there in the length of ribbon Miss Chua cut out?

(1) 23
(2) 22
(3) 11
(4) 9 ( )

(Go on to Booklet B)

HENRY PARK PRIMARY SCHOOL
2015 SEMESTRAL EXAMINATION 1
MATHEMATICS
PRIMARY 6

PAPER 1
(BOOKLET B)

Name: _____ ( )

Class: Primary 6_____

20

Total Time for Booklets A and B: 50 min

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Write your answers in this booklet.

You are not allowed to use a calculator.

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)

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16. Find the value of $\frac{1}{6} \div \frac{3}{8}$. Give your answer as a fraction in the simplest form.

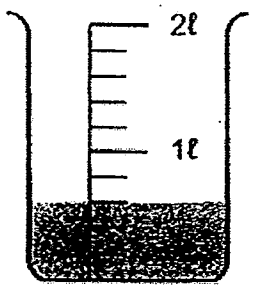
Do not write in this space

Ans: _____

17. Find the value of 1.07×900.

Ans: _____

18. What is the volume of the water in the beaker as shown below?



Ans: _____ mℓ

19. After every 3 hours, Jason's clock is always faster by 2 minutes. Given that the time shown on Jason's clock now is 11 00, what time will his clock show 12 hours later?
(Give your answer in the 24-hour clock)

Do not write in this space

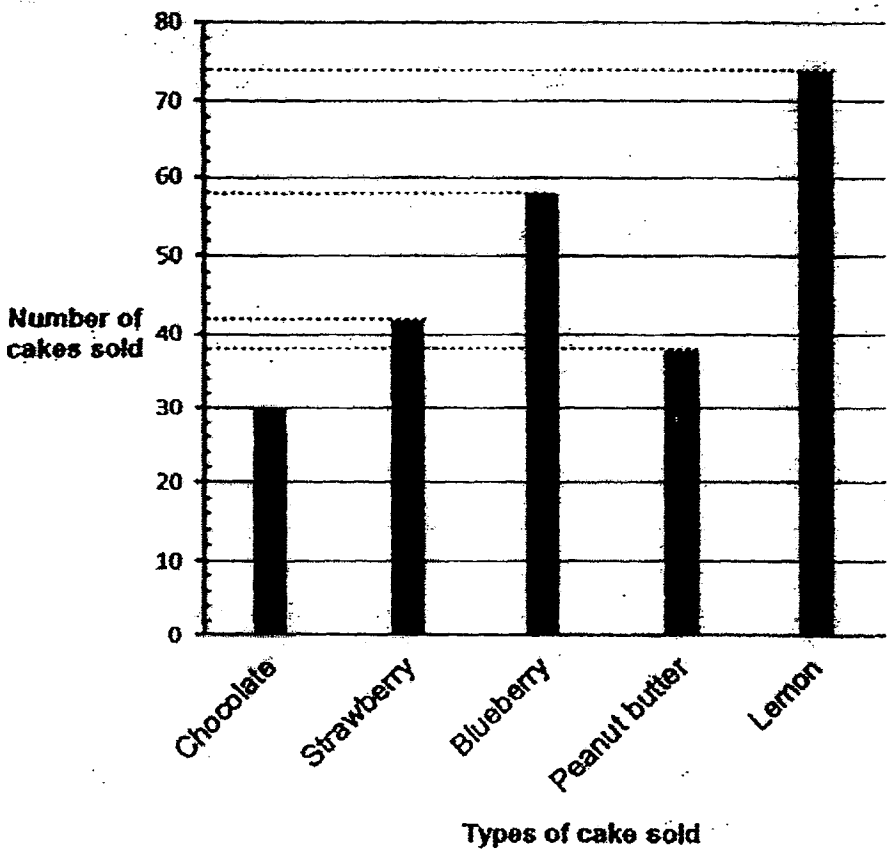
Ans: _____

20. A beanbag has a mass of 20 g. Remy puts 40 such beanbags in an empty basket and weighs them. The weighing scale shows 1 kg. What is the mass of the empty basket?

Ans: _____ g

21. The bar graph below shows the different types of cakes sold by a bakery in January.

Do not write in this space



What is the difference in the number of lemon and blueberry cakes sold?

Ans: _____

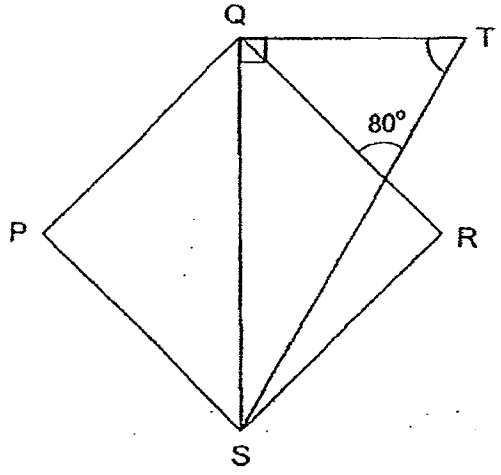
22. The table below shows the masses of Alvin, Bala and Chong Wen. What is the average mass of the 3 boys?

Name of boys	Mass (kg)
Alvin	43
Bala	37
Chong Wen	52

Ans: _____ kg

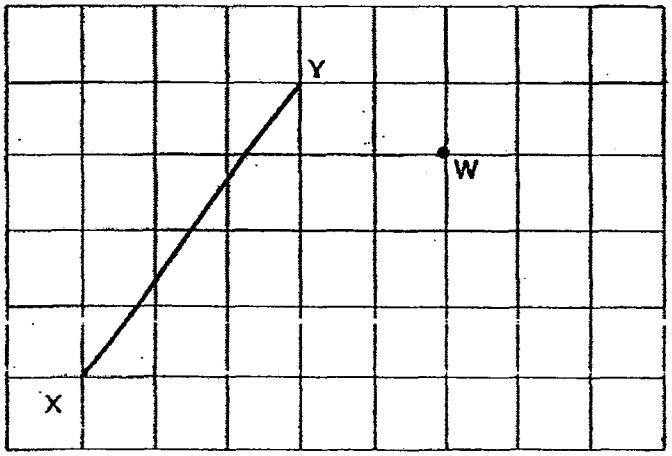
Do not write in this space

23. In the figure below, PQRS is a square and SQT is a right-angled triangle. Find ∠QTS.



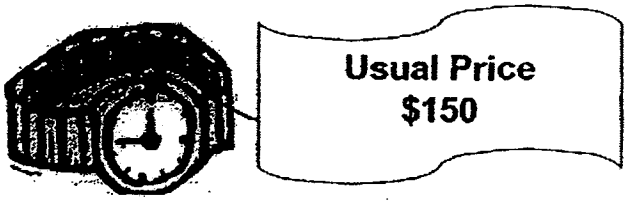
Ans: _____ °

24. The figure below shows a line XY and a point W. Draw a line parallel to XY passing through point W.



Do not write in this space

25. Bob bought a watch at a 20% discount. How much discount did he receive?



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)

Do not write in this space

26. Express 6.26 as a mixed number in its simplest form.

Ans: _____

27. A box contained 400 blue and red marbles. The ratio of the number of red marbles to the number of blue marbles was 2 : 3.
How many blue marbles were in the box?

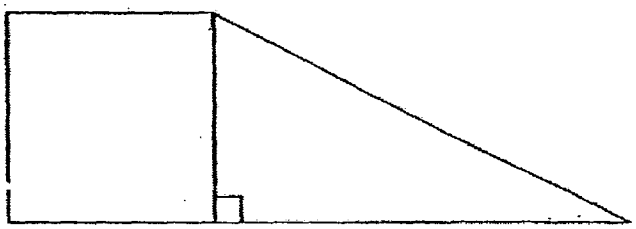
Ans: _____

28. There were a total of 160 chocolate and strawberry sweets in a container. After 16 strawberry sweets were removed, there were 3 times as many chocolate sweets as strawberry sweets left in the container. How many strawberry sweets were left?

Ans: _____

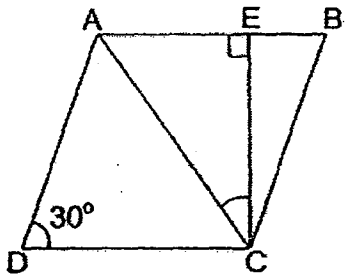
29. The figure below is made up of a right angled triangle and a square. The area of the square is 81 cm^2. Given that the height of the triangle is $\frac{3}{4}$ its base, find the area of the triangle.

Do not write in this space



Ans: _____ cm^2

30. ABCD is a rhombus. EC is perpendicular to AB. Find ∠ACE.



Ans: _____ °

End of Paper

HENRY PARK PRIMARY SCHOOL
2015 SEMESTRAL EXAMINATION 1
MATHEMATICS
PRIMARY 6

PAPER 2

Name: _____( )

Class: Primary 6_____

/ 60

Time for Paper 2: 1 h 40 min

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Show your working clearly as marks are awarded for correct working.

Write your answers in this booklet.

You are allowed to use a calculator.

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 space provided. For questions which require units, give your answers in the units stated.

(10 marks)

---

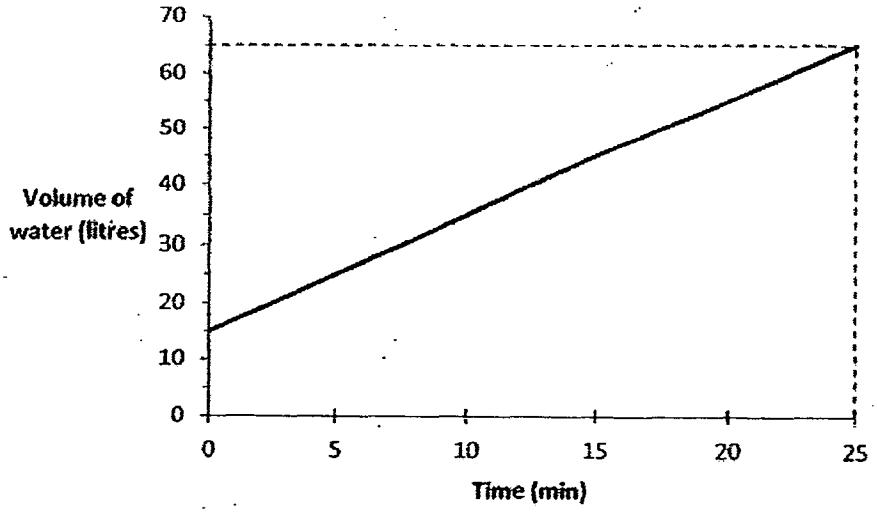
1. A rectangular tank, 20 cm by 25 cm by 9 cm, was filled to the brim with water. 4 ℓ of water was then poured out from it. Find the volume of the remaining water in the tank.

Do not write in this space

Ans: : _____ cm^3

2. A tank contained some water at first. A tap was turned on to fill the tank with water at a constant rate. After 25 minutes, the tap was turned off

The graph below shows the volume of water in the tank during the 25 minute period.

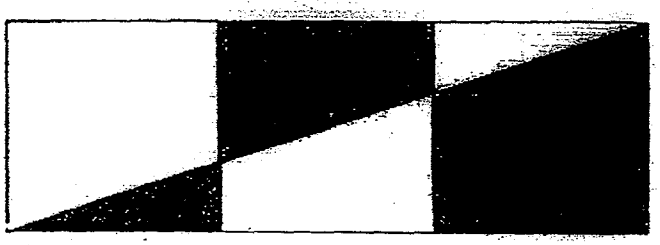


How many litres of water flowed into the tank per minute?

Ans: _____ litres

3. The figure below is made up of 3 identical squares. The area of the shaded part is 216 cm^2. Find the area of 1 square.

Do not write in this space

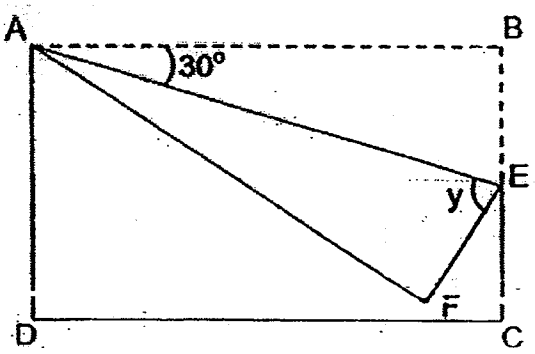


Ans: _____ cm^2

4. A supermarket had a promotion for ice cream cones. Wendy bought some for her birthday party and paid $74.10 for them. How many ice cream cones did she ~~buy~~ receive in total?

Ans: _____

5. The figure below shows a rectangular piece of paper ABCD folded along AE. $\angle BAE = 30°$. Find $\angle y$.



Do not write in this space

Ans: _____ °

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

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6. Jasmine had some pink and yellow paper butterflies. She used $\frac{2}{3}$ of her pink paper butterflies and $\frac{1}{2}$ of her yellow paper butterflies on some greeting cards. She used 48 butterflies of each colour. How many paper butterflies did Jasmine have at first?

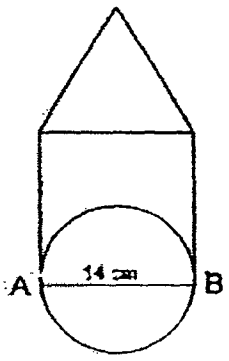
Do not write in this space

Ans: _____ [3]

7. The mass of a container with 20 marbles is 2.59 kg. The mass of the same container with 13 marbles is 1.96 kg. Given that each of the marbles has the same mass, what is the mass of the empty container?

Ans: _____ [4]

8. The figure below is made up of a circle, an equilateral triangle and a square of side 14 cm. AB is the diameter of the circle. Find the perimeter of the figure. (Take $\pi = \frac{22}{7}$)



Do not write in this space

Ans: _____ [3]

9. A shop sells caramel muffins at $4.50 each and walnut muffins at $3.90 each. Sam bought both types of muffins for his birthday party. He paid a total of $308.40 for 74 muffins. How many caramel muffins did Sam buy?

Ans: _____ [3]

10. The average mass of a few bags of rice is 30 kg. When another bag of rice with a mass of 44 kg is added, the average mass of the bags of rice increased to 32kg. How many bags of rice were there at first?

Do not write in this space

Ans: _____ [3]

11. Siva sold some pears over a period of time. Each day, he sells $(k + 1)$ more pears than the day before. He sold 25 pears on the first day.

a) How many pears did he sell on the 4^{th} day? Give your answer in terms of k in the simplest form.

b) On which day would he have sold $(77 + 52k)$ pears?

Ans: a) _____ ___[1]

b) Day _____ [2]

12. At a concert, 35% of the audience were female adults, 46 % were male adults and the rest were children. There were 152 children at the concert.

a) How many male adults were there at the concert?

b) Given that 80 male adults left the concert before it ended, what percentage of the audience was made up of male adults at the end of the concert?

Ans: a) _____ [2]

b) _____ [2]

13. May, Nancy, Oliver and Paul shared some stamps. The ratio of the number of stamps May had to the total number of stamps Nancy, Oliver and Paul had was 1 : 5. The ratio of the number of stamps Nancy had to the total number of stamps May, Oliver and Paul had was 5 : 7.

a) Find the ratio of the number stamps May had to the number of stamps Nancy had.

b) The ratio of the number of stamps Oliver had to the number of stamps Paul had is 7 : 3. Paul had 63 stamps. How many more stamps did Nancy have than Paul?

Do not write in this space

Ans: a) _____ [1]

b) _____ [3]

14. Last year, a total of 2 432 members joined the Outdoor Adventure Club. This year, after 42 more female members joined and 56 male members left, there were twice as many male members as female members who were in the Outdoor Adventure Club. How many male members joined the Outdoor Adventure Club last year?

Do not write in this space

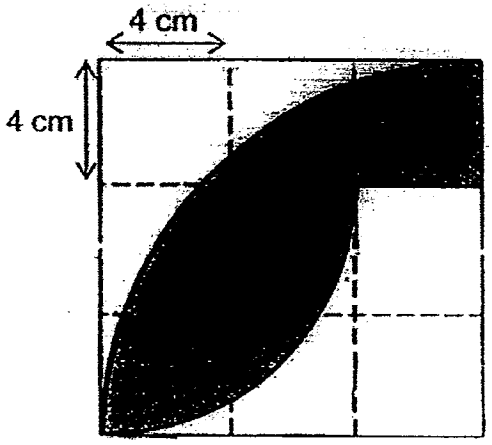
Ans: _____ [5]

15. Benny spent $\frac{1}{5}$ of his money on 4 pineapples and 8 mangoes. The cost of a pineapple was 4 times that of a mango. Benny bought some more pineapples with $\frac{1}{2}$ of his remaining money. How many pineapples did Benny buy in all?

Do not write in this space

Ans: _____ [5]

16. A figure is formed using 2 quarter circles and 2 straight lines on a square grid as shown below. The side of each small square is 4 cm. Taking $\pi = 3.14$, find the area of the shaded figure.



Do not write in this space

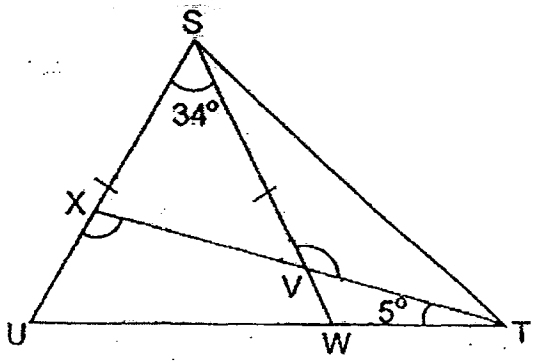
Ans: _____ [5]

17. In the figure below, not drawn to scale, SU = SW. ∠USW = 34° and ∠XTU = 15°. XVT and SVW are straight lines.

Find:

a) ∠UXT

b) ∠SVT



Do not write in this space

Ans: (a) _____ [2]

(b) _____ [2]

18. Grandpa Andy had 8320 coins in his collection. 25% of the coins were from Singapore and the rest of the coins were from Europe. He sold some of his coins from Europe. As a result, the percentage of coins from Singapore increased to 32%. Find the number of coins from Europe Grandpa Andy sold.

Do not write in this space

Ans: _____ [4]

END OF PAPER-

Setters: Mr Bernard Li Ms Chin Lian Mei
Mrs Josephine Lai Ms Yew Hew Mei

Answer Ke

EXAM PAPER 2015

SCHOOL : HENRY PARK

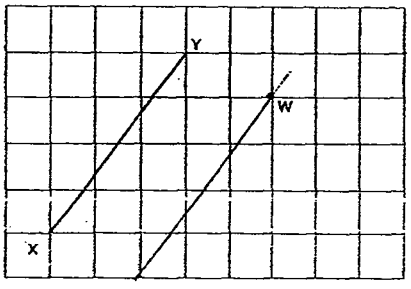
SUBJECT : P6 MATHEMATICS

TERM : SA1

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

16)4/9 17)963 18)600ml 19)2308 20)200g

21)16 22)44kg 23)55° 24)



25)$30 26)$6\frac{13}{50}$ 27)240

28)36 29)54cm^2 30)15°

<u>Paper 2</u>

1)20cm x 25cm = 4500cm^3

4L = 4000ml = 4000cm^3

4500cm^3 – 4000cm^3 = 500cm^3

2)65 – 15 = 50

50 ÷ 25 = 2 litres

3)216cm^2 x 2 = 432cm^2

432cm^2 ÷ 3 = 144cm^2

4)$1.30 x 2 $2.60

$74.10 ÷ $2.60 = $28.50

28 x $2.60 = $72.80

$74.10 – $72.80 = $1.30

28 x 3 = 84

84 + 1 = 85

5)180° – 90° – 30° = 60°

6)48 ÷ 2 = 24

24 x 3 = 72

48 x 2 = 96

96 + 72 = 168

7)20M – 13M = 2.59 – 1.96

= 0.63 = 7M

M = 0.63 ÷ 7 = 0.09

13M = 0.09 x 13 = 1.17

C = 1.96 – 1.17 = 0.79kg

8)½∏d→ ½ x 22/7 x 14/1 = 22

(4 x 4) + 22 = 78cm

9)74 x $3.90 = $288.60

$308.40 – $288.60 = $19.80

$4.50 – $3.90 = $0.60

$19.80 ÷ $0.60 = 33

10)44 – 32 = 12

12 ÷ 2 = 6

11)a)25 + 3 + 3k = 28 + 3k

b)77 – 25 = 52

52 + 1 = 53

12)100% - 35% - 46% = 19%

19% of audience = 152

1% audience = 152 ÷ 19 = 8

46% of audience = 8 x 46 = 368

100% of audience = 8 x 100 = 800

800 – 80 = 720

288/720 = 40/100

a)368

b)40%

13)7u + 3u = 10u

3u = 63

1u = 63 ÷ 3 = 21

10u = 21 x 10 = 210

2 + 5 = 7

12 – 7 = 5

210 ÷ 5 = 42

5 x 42 = 210

210 – 63 = 147

a)2 : 5

b)147

14)2432 + 42 – 56 = 2418

2418 ÷ 32 = 806

806 x 2 = 1612

1612 + 56 = 1668

15)P→4u M→1u

4 x 4 = 16

16 + 8 = 24

½ x 4/5 = 2/5

24 x 5 = 120

24 x 2 = 46

48 ÷ 4 = 12

12 + 4 = 16

16)8 x 4 = 32

32 + 13.76 = 45.76

113.04 – 45.76 = 67.28cm_2

17)180 – 34 = 146

146 ÷ 2 = 73

180 – 73 = 107

180 – 107 – 15 = 58

180 – 58 = 122

180 – 58 – 34 = 88

180 – 58 = 92

a)92°

b)122°

18)32% of after he sold Europe coins collection = 2080

1% of after he sold Europe coins collection = 2080 ÷ 32 = 65

100% of after he sold Europe coins collection = 6500

100% - 32% = 68%

6500 – 2080 = 4420

100% - 25% = 75%

75/100 x 8320 = 6240

6240 – 4420 = 1820