HENRY PARK PRIMARY SCHOOL
2014 SEMESTRAL EXAMINATION 1
MATHEMATICS
PRIMARY 6

PAPER 1

Name: _____ ( )

Class: Primary 6 _____

40

30 Questions
40 Marks

Total Time for Booklet A and B: 50 min

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

READ AND FOLLOW INSTRUCTIONS CAREFULLY.

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. The value of $3 + 4 \times 6 - 6 \div 3$ is _____.

(1) 7
(2) 12
(3) 3
(4) 25 ( )

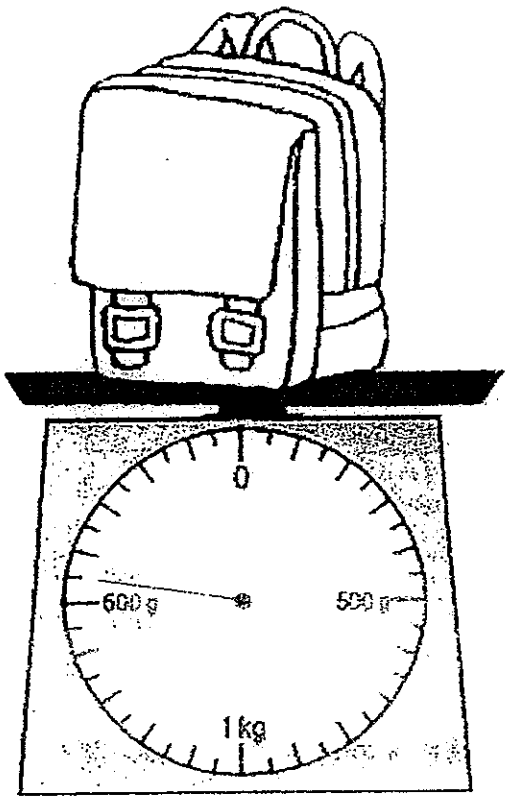
2. How many eighths are there in $3\frac{1}{2}$?

(1) 7
(2) 14
(3) 24
(4) 28 ( )

3. Which of the following is the same as 8 050 mℓ?

(1) 8 ℓ 5 mℓ
(2) 8 ℓ 50 mℓ
(3) 80 ℓ 5 mℓ
(4) 80 ℓ 50 mℓ ( )

4. The mass of the bag shown below is _____.

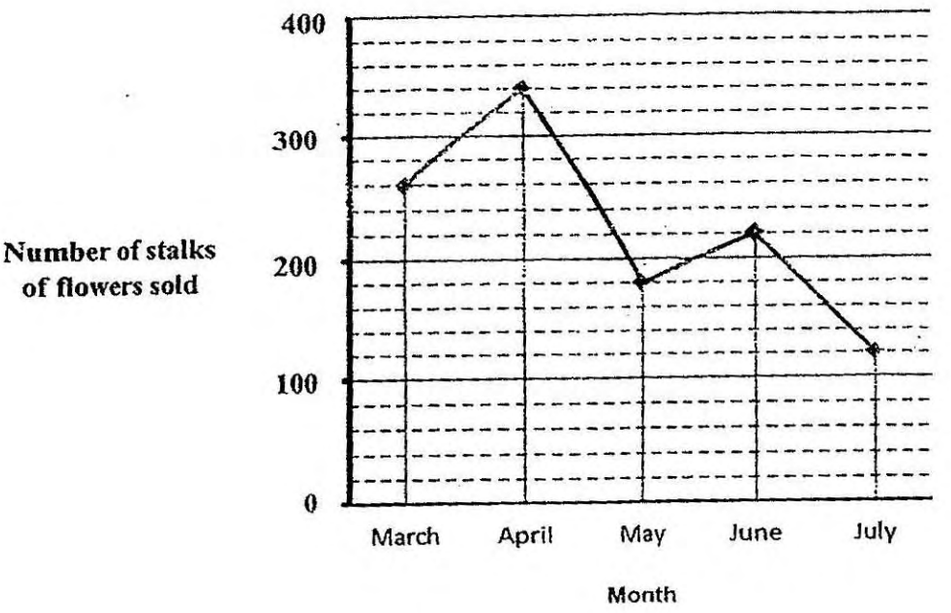


(1) 550 g
(2) 600 g
(3) 1550 g
(4) 1600 g ( )

5. The average of five numbers is 265. What is the sum of the five numbers?

(1) 51
(2) 53
(3) 1025
(4) 1325 ( )

6. The line graph shows the number of stalks of flowers sold over 5 months.



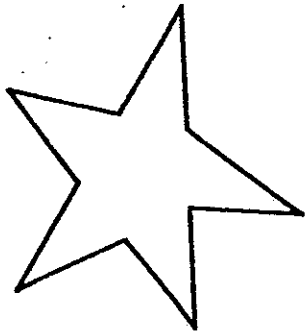
What was the difference in the number of stalks of flowers sold in March and May?

(1) 80
(2) 90
(3) 120
(4) 440

( )

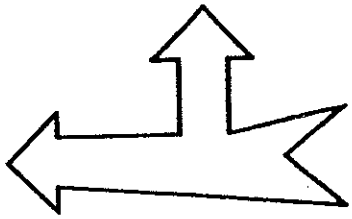
7. Which figure below has a line of symmetry?

(1)

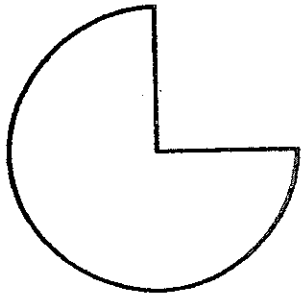


(2)

(3)

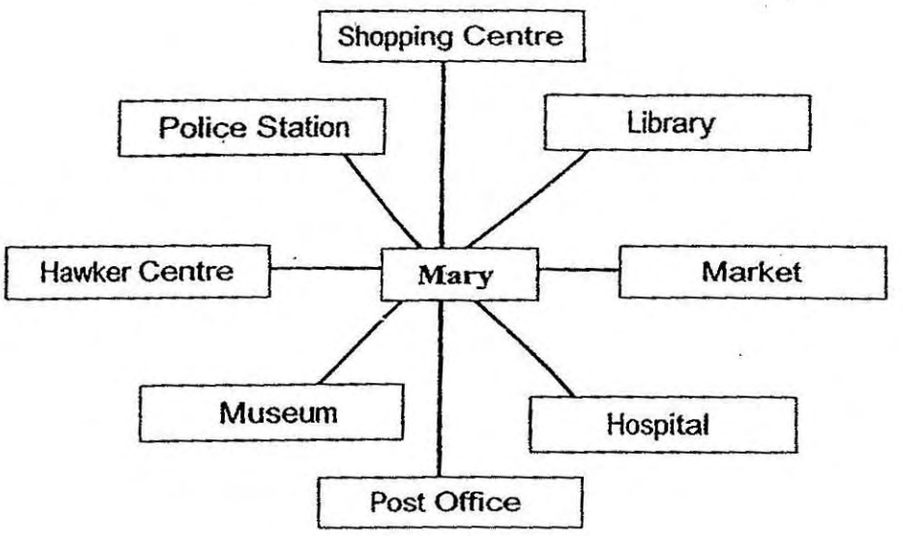


(4)



( )

8. Look at the figure shown below. Mary is facing the hawker centre at first. She then turned 225° anti-clockwise. Which one of the following places will she be facing now?



(1) Library
(2) Hospital
(3) Shopping Centre
(4) Post Office ( )

9. There are 40 pupils in a Science Enrichment class. 30% of the pupils are girls. How many boys are there in the Science Enrichment class?

(1) 10
(2) 12
(3) 28
(4) 37 ( )

10. Simplify $9p + 14 - 3p - 6$.

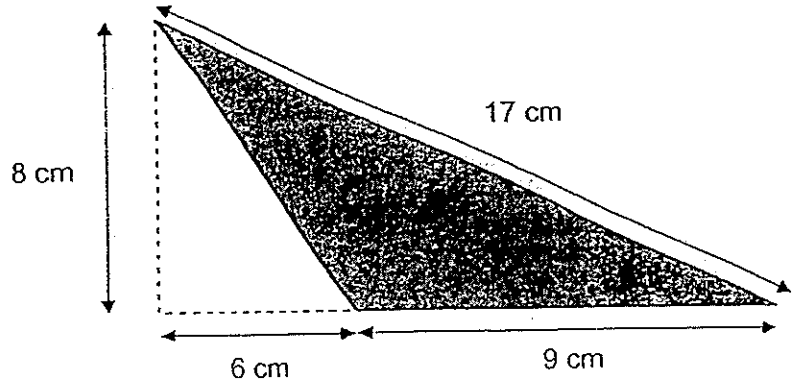
(1) $6p + 8$
(2) $6p - 8$
(3) $12p + 8$
(4) $12p + 20$ ( )

11. Find the difference between 6 tenths and 88 hundredths. Round off your answer to the nearest tenth.

(1) 0.2
(2) 0.3
(3) 0.5
(4) 0.6

( )

12. What is the area of the shaded triangle shown below?



(1) 24 cm^2
(2) 36 cm^2
(3) 60 cm^2
(4) 68 cm^2

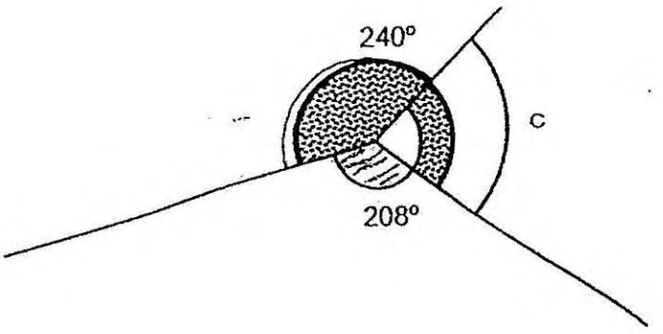
( )

13. The mass of Box A is 36 kg. The total mass of Box B and C is 3 times the mass of Box A. What is the average mass of the three boxes?

(1) 16 kg
(2) 48 kg
(3) 84 kg
(4) 144 kg

( )

14. Study the figure below. Find $\angle c$.



(1) 32°
(2) 88°
(3) 120°
(4) 152 °

( )

15. Jiamin saved $30.15 from Monday to Wednesday. She saved 3 times as much money on Thursday than the total amount saved from Monday to Wednesday. How much money did she save for the 4 days?

(1) $10.05
(2) $40.20
(3) $90.45
(4) $120.60

( )

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. Find the difference in values of the digit 9 in 293 967.

Ans: _____

17. What is the missing fraction in the box? Give your answer in the simplest form.

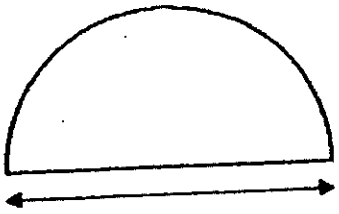
$280 = \boxed{?} \times 350$

Ans: _____

18. 3 h 15 min = _____ min

Ans: _____ min

19. Find the perimeter of the semicircle shown below. (Take $\pi = \frac{22}{7}$.)



Ans: _____ cm

20. 287 900 m = _____ km.

Ans: _____ km

21. Mrs Tan sold a total of 552 muffins from Tuesday to Friday. What was the average number of muffins Mrs Tan sold each day?

Ans: _____

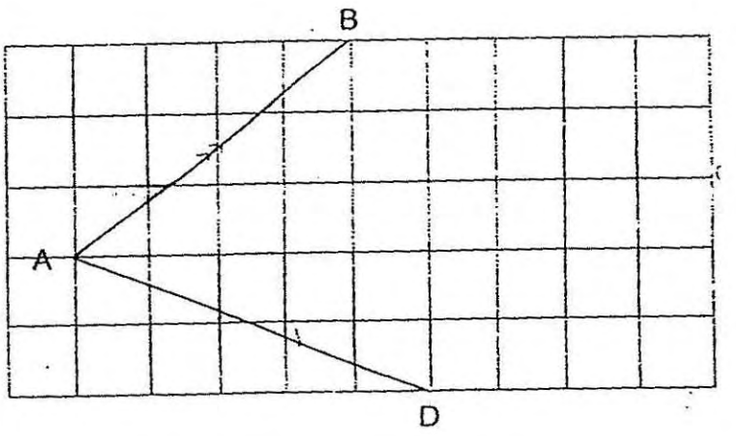
22. The table shows the number of television sets each family in Katong housing estate has. There are 150 families in the housing estate.

Number of television sets per family	0	1	2	3
Number of families	16	29	75	30

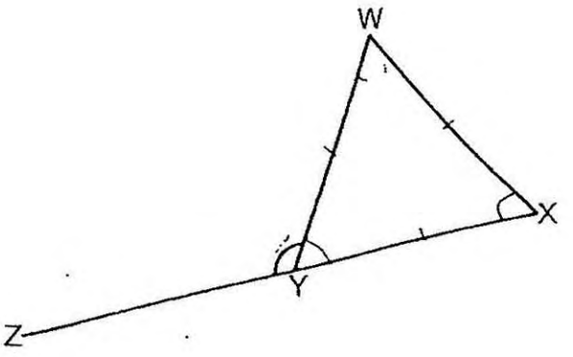
What percentage of the families has **at least** 2 television sets?

Ans: _____ %

23. AB and AD are two sides of a parallelogram. Complete the parallelogram by drawing the other two sides in the square grid below.



24. In the figure, WXY is ~~an~~ equilateral triangle and XYZ is a straight line. Find ∠WYZ.



Ans: _____ °

25. Express 4.05 as a percentage.

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. Find the average of 0.2, 0.02 and 0.002.

Ans: _____

27. Sam and Taufiq shared some stickers in the ratio of 5 : 2. Sam gave $\frac{1}{4}$ of his stickers to Taufiq. What was the new ratio of the number of Sam's stickers to the number of Taufiq's stickers?

Ans: _____

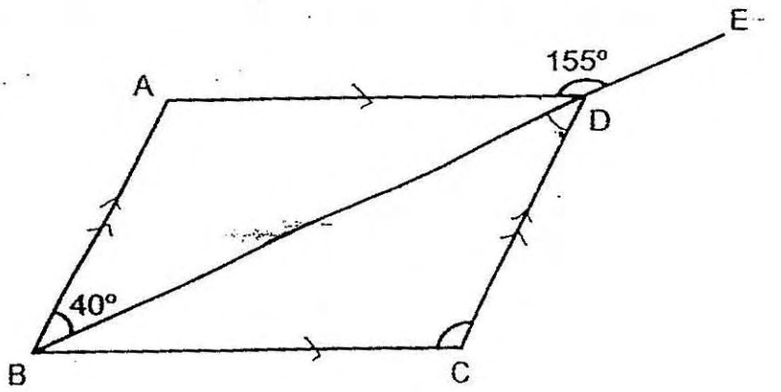
28. Given that $\frac{5}{8}$ of a number is 80, what is the number?

Ans: _____

29. The capacity of a pail is 4.5 ℓ. Jane uses 12 such pails of water to fill 5 identical tanks completely. What is the capacity of each tank?

Ans: _____ ℓ

30. In the figure, ABCD is a parallelogram and BDE is a straight line. Find ∠BCD.



Ans: _____ °

END OF PAPER

Setters: Mr Bernard Li, Mrs Priscilla Heng, Mrs Josephine Lai, Ms Yew Hew Mei, Mdm Norah Idil

HENRY PARK PRIMARY SCHOOL
2014 SEMESTRAL EXAMINATION 1
MATHEMATICS
PRIMARY 6

PAPER 2

Name: _____ ( )

Class: Primary 6 _____

/ 60

18 Questions
60 Marks

Total Time for Paper 2: 1 h 40 min

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

READ AND FOLLOW INSTRUCTIONS CAREFULLY.

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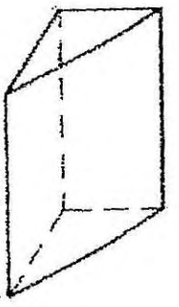
Questions 1 to 5 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the space provided. For questions which require units, give your answers in the units stated. (10 marks)

1. A square has an area of 36 cm^2. Find its perimeter.

Ans: _____ cm

2. The figure below shows a prism.
   (a) How many corners does it have?
   (b) How many faces does it have?



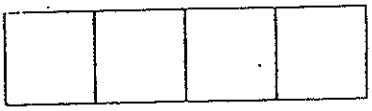
Ans:(a) _____ [1]

(b) _____ [1]

3. Tin A contained 6 times as many biscuits as Tin B. Jennifer added 150 biscuits to Tin B. The 2 tins then had the same number of biscuits. Find the total number of biscuits in the 2 tins at first.

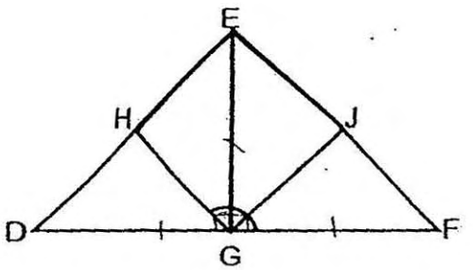
Ans: _____

4. In the figure below, 4 identical squares have been placed side by side to form a rectangle of perimeter 50 m. Find the area of each square.



Ans: _____ m^2

5. In the figure, DEG and GEF are identical right-angled isosceles triangles. H and J are the mid-points of DE and EF respectively. Find ∠FGH.



Ans: _____ °

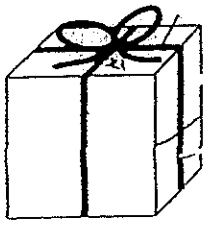
For questions 6 to 18, show your working clearly in the space provided for each question and write your answers in the spaces provided.

The number of marks available is shown in brackets [ ] at the end of each question or part-question. (50 marks)

6. There were 3 220 spectators at a stadium. $\frac{3}{7}$ of the male and $\frac{3}{4}$ of the female spectators did not wear sunglasses. The number of male spectators who wore sunglasses was the same as the number of female spectators who wore sunglasses. How many spectators wore sunglasses altogether?

Ans: _____ [3]

7. A 0.75-m long ribbon is used to tie a cubic box as shown in the picture. The tying of the bow used up 0.11 m of the ribbon. Find the length of each side of the box in metres.



Ans: _____ [3]

8. Figure A is made up of a rectangle and a triangle. Figure B is a rectangle. Figures A and B have the same area. Find the perimeter of Figure B.

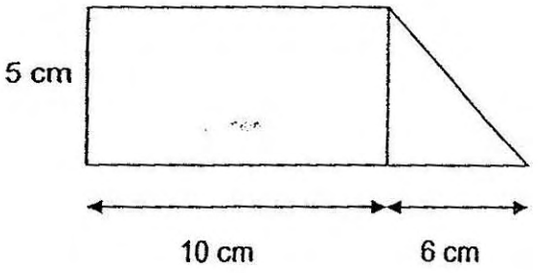


Figure A

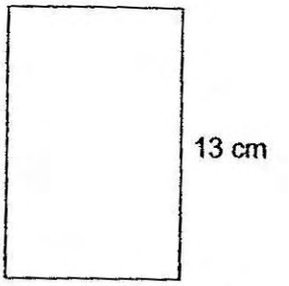


Figure B

Ans: _____ [3]

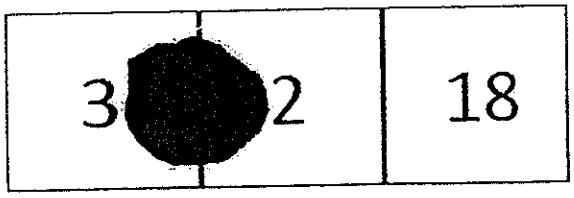
9. Alice decided to save part of her pocket money every day for a year. She saved \$3 on the first day of the year. She continued to save \$$y$ more each day than the day before.

(a) What was her total savings for the first 4 days of the year?
(b) How much did she save on the 234^{th} day itself?

Ans: (a) _____ [2]

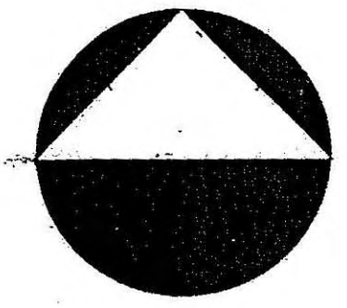
(b) _____ [1]

10. Three 2-digit numbers were written on a piece of paper. The average of the three numbers was 42. A digit of two of the numbers was covered by a stain.
What were the two 2-digit numbers?



Ans: _____ and _____ [3]

11. The figure below shows a right-angled triangle inside a circle. The longest side of the triangle is the diameter of the circle. Given that the diameter of the circle is 10 cm, find the area of the shaded portion. (Take $\pi = 3.14$)



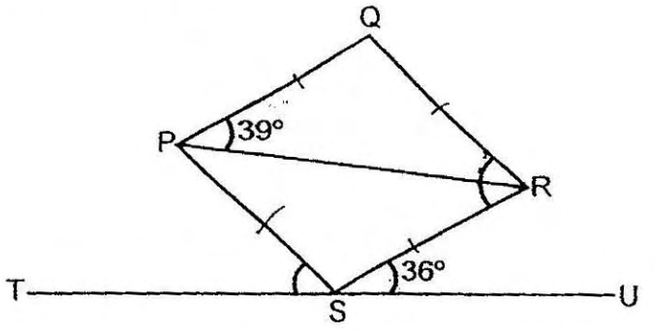
Ans: _____ [4]

12. Mrs Bala had a total of 128 apples, oranges and mangoes in the ratio of 7 : 5 : 4 respectively. After she gave away some apples and 15 mangoes, the ratio of the number of oranges to the total number of fruits left became 1 : 2. How many apples did Mrs Bala give away?

Ans: _____ [4]

13. In the figure, PQRS is a rhombus. TSU is a straight line. $\angle RPQ = 39°$ and $\angle RSU = 36°$.

(a) Find $\angle QRS$.
(b) Find $\angle PST$.



Ans: (a) _____ [1]

(b) _____ [3]

14. Mrs Wong was paid $5 for every cooking pot she sold. She was paid a bonus of $20 for every 8 cooking pots she sold. She earned $500 for all the cooking pots she sold. How many cooking pots did she sell?

Ans: _____ [4]

15. Mr Lin always saves 30% of his monthly salary. When his salary increased by 10%, his savings increased by $189. Find Mr Lin's salary before the increase.

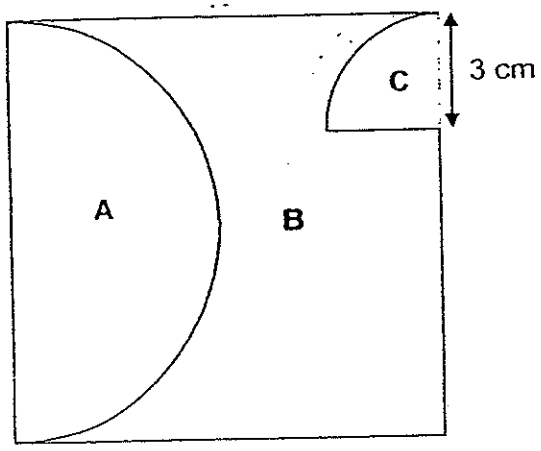
Ans: _____ [4]

16. The figure below shows semi-circle A and quarter-circle C inside a square of side 12 cm. B is the remaining portion of the square not covered by A and C.

(a) Find the perimeter of B.

(b) Find the area of B.

(Take $\pi = 3.14$)



Ans: (a) _____ [3]

(b) _____ [2]

17. At a fruit stall, the number of watermelons was $\frac{3}{5}$ of the number of pineapples.

In the morning, $\frac{1}{3}$ of the watermelons and $\frac{1}{3}$ of the pineapples were sold.

In the afternoon, 8 watermelons and 8 pineapples were sold.

The number of watermelons left was $\frac{1}{2}$ of the number of pineapples.

(a) What was the ratio of the number of watermelons left to the number of pineapples left after they were sold in the **morning**?

(b) How many watermelons were there at the stall at first?

Ans: (a) _____ [2]

(b) _____ [3]

18. There were 20 questions in a quiz.
For each question answered correctly, 6 points were awarded.
For each question answered incorrectly, 4 points were deducted.
For each question left blank, no points were awarded or deducted.

(a) Ben **answered all the questions** in the quiz but obtained a score of zero. How many questions did Ben answer correctly?

(b) Ray scored 16 points for the quiz. The number of questions he answered correctly was the same as the number of questions he answered incorrectly. How many questions did he leave **blank**?

Ans: _____ [5]

END OF PAPER

Setters: Mr Bernard Li, Mrs Priscilla Heng, Mrs Josephine Lai, Ms Yew Hew Mei, Mdm Norah Idil

EXAM PAPER 2014
LEVEL : PRIMARY 6
SCHOOL : HENRY PARK
SUBJECT : MATHS
TERM : SA1

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

Q16 89100

Q17 $^4/_5$

Q18 195 min

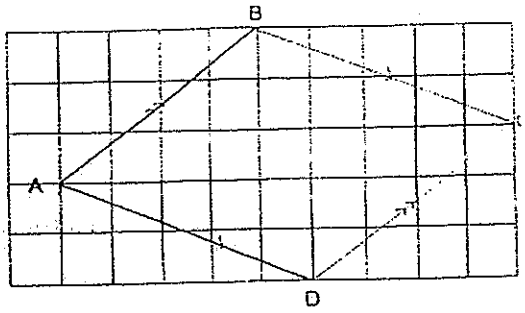
Q19 36 cm

Q20 287.9 km

Q21 138 muffins

Q22 70%

Q23



Q24 120 °

Q25 405%

Q26 0.074

Q27 15 : 13

Q28 128

Q29 10.8ℓ

Q30 115 °

PAPER 2

Q1 $\sqrt{36} = 6$
$6 \times 4 = 24$

Its perimeter is 24 cm.

Q2 (a) 6 corners
(b) 5 faces

Q3 $6 - 1 = 5$
5 units → 150
1 unit → 30
7 units → 210

The total number of biscuits is 210.

Q4 10 units → 50 m
1 unit → 5 m
$5 \times 5 = 25$

The area is $25m^2$.

Q5 $90 \div 2 = 45$
$45 \times 3 = 135$
$\angle$ FGH is 135°

Q6 $1 - {}^3/_7 = {}^4/_7$
$1 - {}^3/_4 = {}^1/_4$
${}^1/_4F = {}^4/_7M$
${}^4/_{16}F = {}^4/_7M$
$16 + 7 = 23$
23 units → 3220
1 unit → 140
$4 \times 2 = 8$
$140 \times 8 = 1120$

1120 spectators wore glasses altogether.

Q7 $0.75 - 0.11 = 0.64$
$0.64 \div 8 = 0.08$ (8 sides)

The length is 0.08m.

Q8 $6 \times 5 \times 0.5 = 15$
$10 \times 5 = 50$
$50 + 15 = 65$
$65 \div 13 = 5$
$2 (13 + 5) = 36$
The perimeter is 36 cm.

Q9 $3 + y + 3 + y + y + 3 + y + y + y + 3 = 6y + 12$

a. Her total savings is $(6y+12).

$234 - 1 = 233$
$233 \times y = 233y$
$233y + 3 \rightarrow 234^{th}$ day

b. **She saved $(233y + 3).**

Q10 $42 \times 3 = 126$
$126 - 18 - 2 - 30 = 76$
$70 + 6 = 76$
$70 + 2 = 72$
$30 + 6 = 36$

The digits are 36 and 72.

Q11 $10 \div 2 = 5$
$5 \times 10 \times 0.5 = 25$
$5 \times 5 \times 3.14 = 78.5$
$78.5 - 25 = 53.5$

The area is 53.5 cm^2.

Q12

A	:	O	:	M
7	:	5	:	4
-?				-15 (gave away)

left : orange

2 : 1 (x5)
10 : 5 (Orange unchanged)

$7 + 5 + 4 = 16$
16 units $\rightarrow$ 128
1 unit $\rightarrow$ 8
10 units $\rightarrow$ 80 (fruits left)
$128 - 80 = 48$ (gave away apples + 15 mangoes)
$48 - 15 = 33$

She gave away 33 apples.

Q13 (a) $\angle QPR = \angle QRP = \angle PRS$

$39 \times 2 = 78$

$\angle QRS = 78^{\circ}$

(b) $180 - 78 = 102$

$\angle PSR = 102^{\circ}$

$180 - 102 - 36 = 42$

$\angle PST = 42^{\circ}$

Q14 $8 \times 5 = 40$

$40 + 20 = 60$

$500 \div 60 = 8R20$

$20 \div 5 = 4$

$8 \times 8 = 64$

$64 + 4 = 68$

She sold 68 cooking pots.

Q15 $^{10}/_{100} \times 30 = 3$

$3\ \% \rightarrow 189$

$1\ \% \rightarrow 63$

$100\% \rightarrow 6300$

Mr Lin's salary is $6300.

Q16 (a) $12 \times 3.14 \times \frac{1}{2} = 18.84$

$3 \times 2 = 6$

$6 \times 3.14 \times \frac{1}{4} = 4.71$

$12 - 3 = 9$

$9 + 3 + 12 + 12 + 18.84 + 4.71 = 59.55$

The perimeter of B is 59.55cm.

(b) $12 \times 12 = 144$

$12 \div 2 = 6$

$6 \times 6 \times 3.14 \times \frac{1}{2} = 56.52$

$3 \times 3 \times \frac{1}{4} \times 3.14 = 7.065$

$144 - 56.52 - 7.065 = 80.415$

The area of B is 80.415cm^2.

Q17

	W : P	
	3u : 5u (x3)	
	9u : 15u	
(morning)	3u : 5u (⅓ sold)	
	6u : 10u (left)	
(afternoon)	-8 -8 (sold)	
	1u : 2u	
	4u : 8u (left)	

Diff
4u
1u (x4)

(a) The ratio is 3 : 5

(b) 10u – 8u = 2u
2u → 8
9u → 36

There were 36 watermelons at first.

Q18 Assume Ben answered all the questions correctly.

20 x 6 = 120
6 + 4 = 10
120 ÷ 10 = 12
20 – 12 = 8

Ben answered 8 questions correctly.

Assume Ben answered all the questions

20 ÷ 2 = 10
10 x 6 = 60
10 x 4 = 40
60 – 40 = 20
20 – 16 = 4

He left 4 questions blank.