



Rosyth School
First Continual Assessment 2014
Primary 6 Mathematics

Name: _____ Register No. _____

Class: Pr 6 - _____

Date: 28 February 2014 Parent's Signature: _____

Total Time for Booklets A and B : 50 minutes

PAPER 1
(Booklet A)

Instructions to Pupils:

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

Section	Maximum Mark	Marks Obtained
Paper 1 (Booklet A)	20	

*** This booklet consists of 7 pages (including this cover page)**

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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)

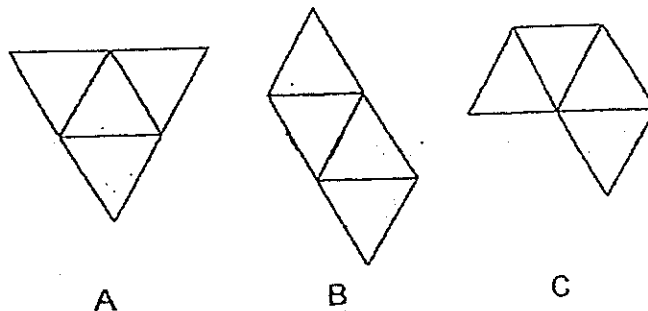
1. Round off 56 048 to the nearest hundred.

- (1) 56 000
- (2) 56 040
- (3) 56 050
- (4) 56 100

2. $\frac{7}{9} \times \frac{6}{13} = \frac{14}{\square}$

- (1) 16
- (2) 22
- (3) 39
- (4) 117

3. Which of the nets shown below can be folded to form a pyramid?



- (1) A only
- (2) A and B only
- (3) A and C only
- (4) B and C only

4. Simplify $7y - 2y \times 3 + 5y \times 2$

- (1) $11y$
- (2) $17y$
- (3) $25y$
- (4) $40y$

5. 100 pupils took part in a survey to find out their mode of transport. The results were tabulated as follows:

School Bus	Private Car	Walk	Public Bus
25	30	35	10

What is the ratio of the number of pupils who take the school bus to the number of pupils who take the public bus to the number of pupils who walk?

- (1) $2 : 5 : 6$
- (2) $5 : 2 : 7$
- (3) $5 : 6 : 7$
- (4) $6 : 2 : 5$

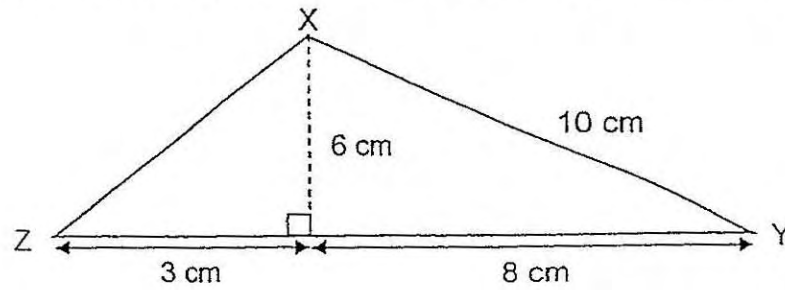
6. The usual price of a book was \$25. It was sold for \$10. What was the percentage discount on the book?

- (1) 10 %
- (2) 15 %
- (3) 40 %
- (4) 60 %

7. Boston invited 40 friends to his party. 12 of them were boys while the rest were girls. What percentage of the friends he invited were girls?

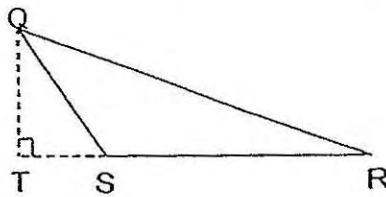
- (1) 7%
- (2) 28%
- (3) 30%
- (4) 70%

8. Find the area of triangle XYZ. (The figure is not drawn to scale)



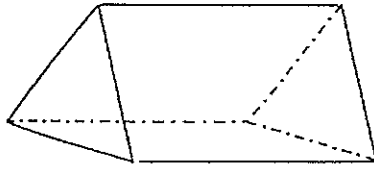
- (1) 33 cm^2
- (2) 39 cm^2
- (3) 57 cm^2
- (4) 66 cm^2

9. What is the area of triangle QRS as shown in the figure?

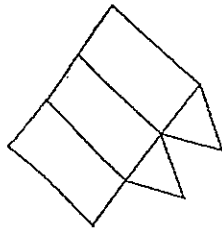


- (1) $\frac{1}{2} \times QR \times QS$
- (2) $\frac{1}{2} \times SR \times QS$
- (3) $\frac{1}{2} \times RT \times QT$
- (4) $\frac{1}{2} \times SR \times QT$

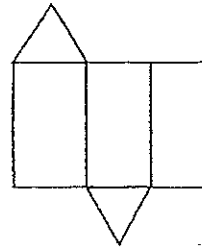
10. Which of the following nets can be folded to form this triangular prism?



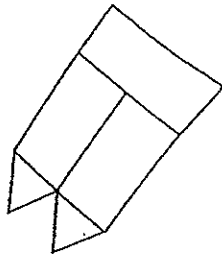
(1)



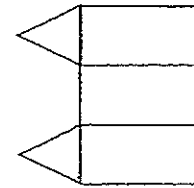
(2)



(3)



(4)



11. Find the ratio $a : c$.

$a : b$	$b : c$	$a : c$
$2 : 3$	$4 : 7$?

(1) $2 : 7$

(2) $8 : 12$

(3) $8 : 21$

(4) $12 : 21$

12. The area of a rectangular science garden plot in a school is $\frac{3}{10} \text{ m}^2$. Its width is $\frac{1}{3} \text{ m}$. What is its length?

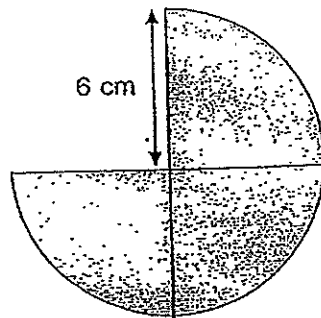
(1) $\frac{1}{10} \text{ m}$

(2) $\frac{9}{10} \text{ m}$

(3) $1\frac{1}{9} \text{ m}$

(4) 10 m

13. The figure below is made up of 3 identical quadrants with radius $r = 6 \text{ cm}$. What is the perimeter of the figure? Leave your answer in terms of π .



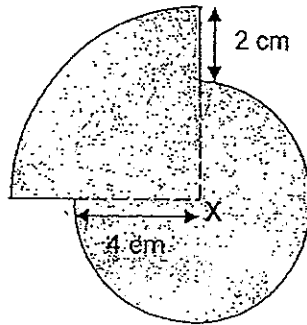
(1) $(12\pi) \text{ cm}$

(2) $(\frac{3}{4} \times 12\pi) \text{ cm}$

(3) $(\frac{3}{4} \times 12\pi) + 6 \text{ cm}$

(4) $(\frac{3}{4} \times 12\pi) + 12 \text{ cm}$

14. The figure below is made up of a three-quarter circle and a quadrant. X is the centre of the circle. What is the area of the figure? Leave your answer in terms of π .



- (1) $12\pi \text{ cm}^2$
(2) $16\pi \text{ cm}^2$
(3) $21\pi \text{ cm}^2$
(4) $36\pi \text{ cm}^2$
15. Mary buys 3 notebooks and 2 pencils from a bookshop. A notebook costs 2 times as much as a pencil. How much does each notebook cost if she pays \$6 altogether?
- (1) \$1.20
(2) \$1.50
(3) \$2.00
(4) \$3.00

End of Booklet A



Rosyth School
First Continual Assessment 2014
Primary 6 Mathematics

Name: _____ Register No. _____

Class: Pr 6 - _____

Date: 28 February 2014 Parent's Signature: _____

Total Time for Booklets A and B : 50 minutes

**PAPER 1
(Booklet B)**

Instructions to Pupils:

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

Section	Maximum Mark	Marks Obtained
Paper 1 (Booklet B)	20	

*** This booklet consists of 6 pages (including this cover page)**

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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)

-
16. Write the following in numerals:
Two hundred and fifty-three thousand, one hundred and eight.

Ans: _____

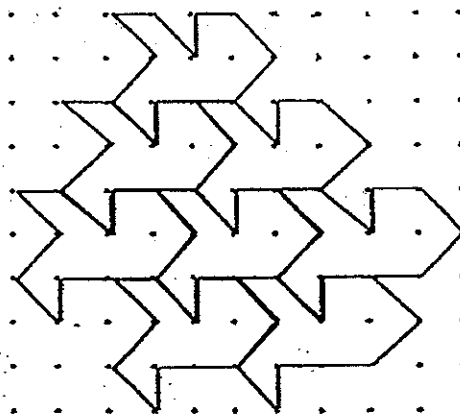
17. Express $4\frac{7}{8}$ as a decimal.

Ans: _____

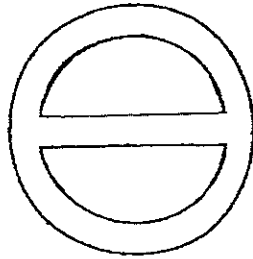
18. Express 0.22 as a percentage.

Ans: _____

19. Extend the tessellation by drawing 1 more unit shape in the space provided within the dot diagram.

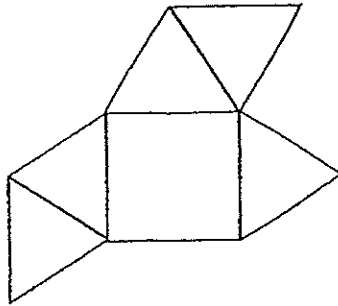


20. How many line(s) of symmetry does this figure have?



Ans: _____

21. The figure below shows an incorrectly drawn net of a pyramid.



Put an 'X' on the part which is wrongly drawn and should be removed.

22. What is the value of $\frac{8p}{3}$ when $p = 5$?

Ans: _____

23. $3 \times 7 - 10 + 54 \div 9 = \square$

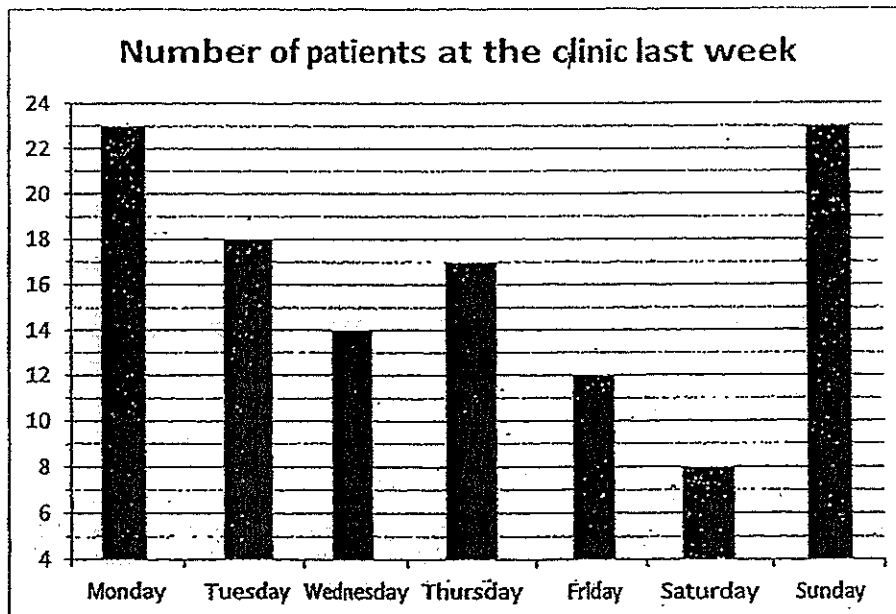
What is the missing value in the box?

Ans: _____

24. Mike had 360 picture cards. He gave $\frac{5}{6}$ of them to his sister. How many picture cards had he left?

Ans: _____

25. The graph below shows the number of patients at a clinic from Monday to Sunday.



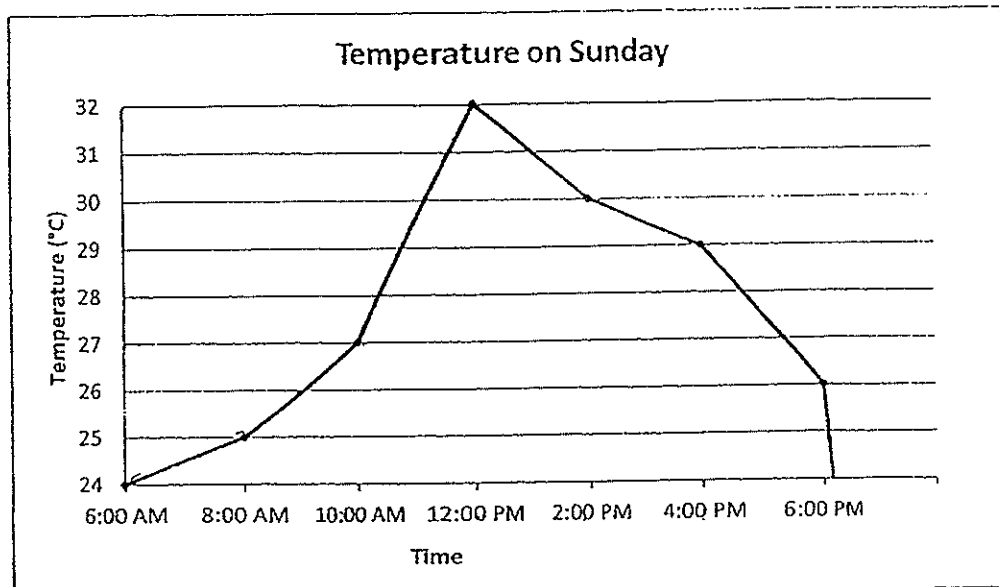
On which day was the number of patients $1\frac{1}{2}$ times that of Saturday?

Ans: _____

Questions 26 to 30 carry 2 marks each. Show your workings 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. The graph below that shows the temperature from 6am to 6pm on Sunday.



What is the average temperature from 6am to 6pm on Sunday?
Give your answer correct to one decimal place.

Ans: _____ °C

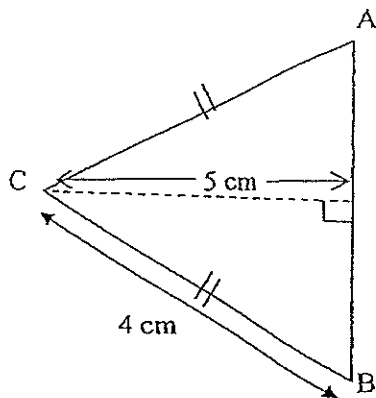
27. The ratio of Tina's mass to Farah's mass to Ginny's mass is 3 : 5 : 7.
Tina is 16 kg lighter than Ginny, find the total mass of the three girls.

Ans: _____ kg

28. Roy has $4y$ marbles. Ken has thrice as many marbles as Roy. Don has 8 marbles less than Ken. How many marbles do they have altogether?

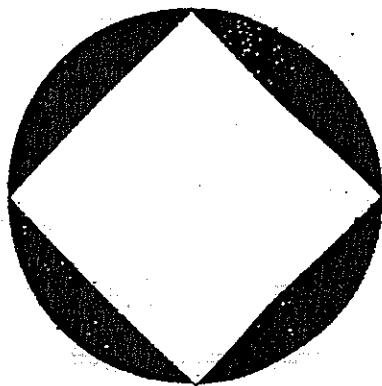
Ans: _____

29. The figure below is not drawn to scale. Triangle ABC is an isosceles triangle and the perimeter is 14 cm. Find the area of Triangle ABC.



Ans: _____ cm^2

30. The figure below consists of a square and a circle with diameter of 8 cm. What is the area of the shaded part? Leave your answer in terms of π .



Ans: _____ cm^2

End of Booklet B



Rosyth School
First Continual Assessment 2014
Primary 6 Mathematics

Name: _____ Register No. _____

Class: Pr 6 - _____

Date: 28 February 2014 Parent's Signature: _____

Time: 1 h 40 min

PAPER 2

Instructions to Pupils:

1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. **Show your workings clearly** as marks are awarded for correct working.
4. Write your answers in this booklet.
5. You are allowed to use a calculator
6. Answer all questions.

Questions	Maximum Mark	Marks Obtained
Q 1 to 5	10	
Q 6 to 18	50	

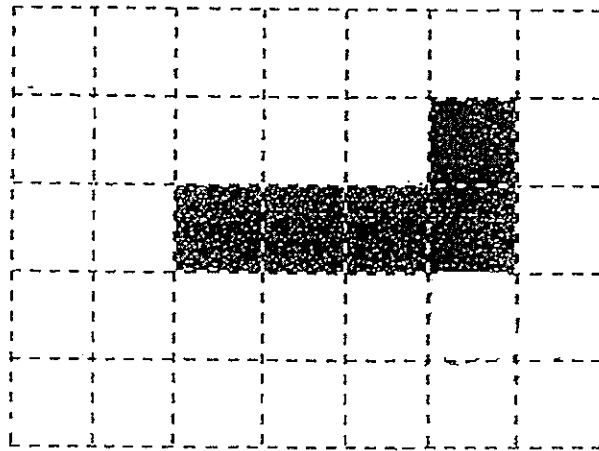
Section	Maximum Mark	Marks Obtained
Paper 1	40	
Paper 2	60	
Total	100	

*** This booklet consists of 16 pages (including this cover page)**

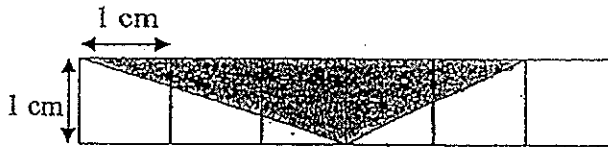
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3. Draw and shade one more box in the grid below to form the net of a cube.

Do not write
in this spac



4. Find the area of the shaded part shown below.



Ans: _____ cm²

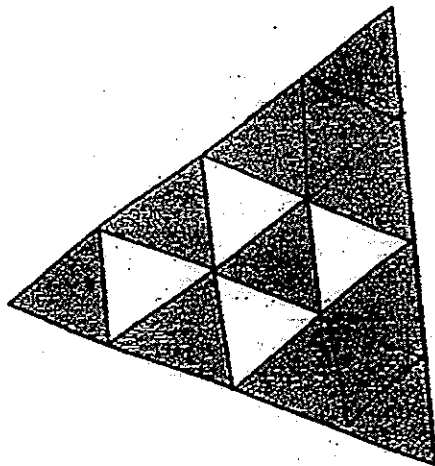
Questions 1 to 5 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space

1. $\frac{1}{2}$ of X is equal to $\frac{3}{5}$ of Y. What is the ratio of X : Y?

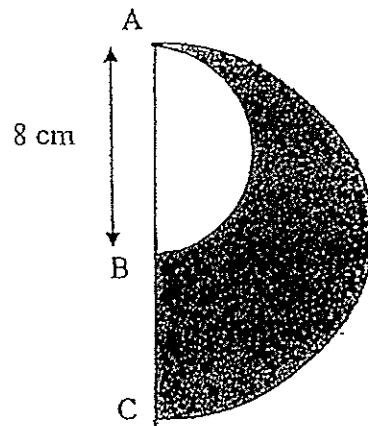
Ans: _____

2. What fraction of the figure is shaded?



Ans: _____

5. The figure below (not drawn to scale) is made up of 2 semi-circles. Given that AB is the diameter of the smaller semi-circle and $AB = BC$, find the perimeter of the shaded region using calculator π .
 (Leave your answer correct to 2 decimal places)



Do not write
in this space

Ans: _____ cm

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.

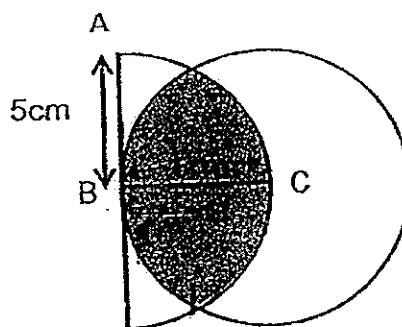
Do not
in this :

(50 marks)

6. Samuel had some money. He spent 20% of it on a book. He then bought a bag which cost \$57 more than the book. He had \$75 left. What percentage of his money was spent on the bag? (Leave your answer correct to 2 decimal places)

Ans: _____ [3m]

7. The figure (not drawn to scale) shows a semi-circle and a circle of radius 5 cm. $AB = BC = 5$ cm. Area of the shaded part is 33cm^2 . Find the area of the figure. (Take $\pi = 3.14$)



Ans: _____ [3m]

8. Team B had 12 fewer players than Team A. When 3 players from Team B were transferred to Team A, Team A had 3 times as many players as Team B.

Do not write
in this space

- (a) How many players were in Team A at first?
- (b) How many players were in Team B at first?

Ans: (a) _____ [2m]

(b) _____ [1m]

9. Two years ago, Rajah was n years old. His brother was twice his age then.

- (a) What was their total age 2 years ago?
- (b) What is their total age now?
- (c) What will be their total age 3 years from now?

Express all your answers in terms of n .

Do not write
in this space .

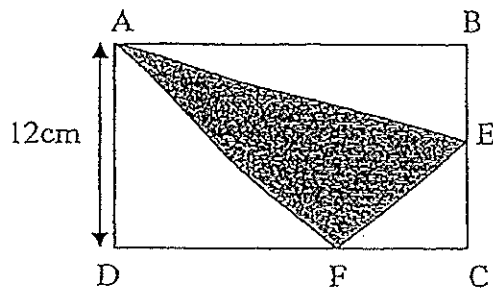
Ans: (a) _____ [1m]

(b) _____ [1m]

(c) _____ [1m]

10. The figure below (not drawn to scale) shows rectangle ABCD. ADF and CEF are isosceles triangles. Given that $BE = CE$, find the area of the shaded triangle.

Do not write in this space



Ans: _____ [3m]

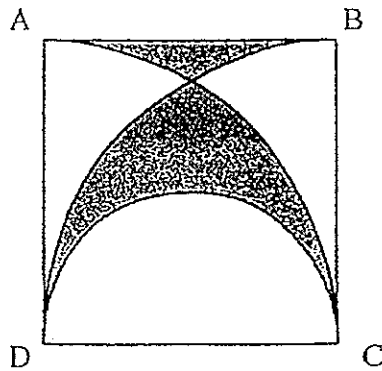
11. Peter and Dew had some stamps in the ratio of 5 : 7. After both of them used up 22 stamps each, the ratio became 2 : 5. How many stamps did Peter have at first?

Do not write
in this space

Ans: _____ [4m]

12. In the figure below (not drawn to scale), the square ABCD has sides of 10 cm. There is a semi-circle and two quadrants drawn in it. Find the perimeter of the shaded figure below. (Take $\pi = 3.14$)

Do not write
in this space



Ans: _____ [4m]

13. Alice has 93 coins in her piggy bank that contains only \$1 and 20¢ coins. She has counted her coins and they added up to \$62.60 altogether. How many \$1 coins does Alice have?

Do not write
in this space

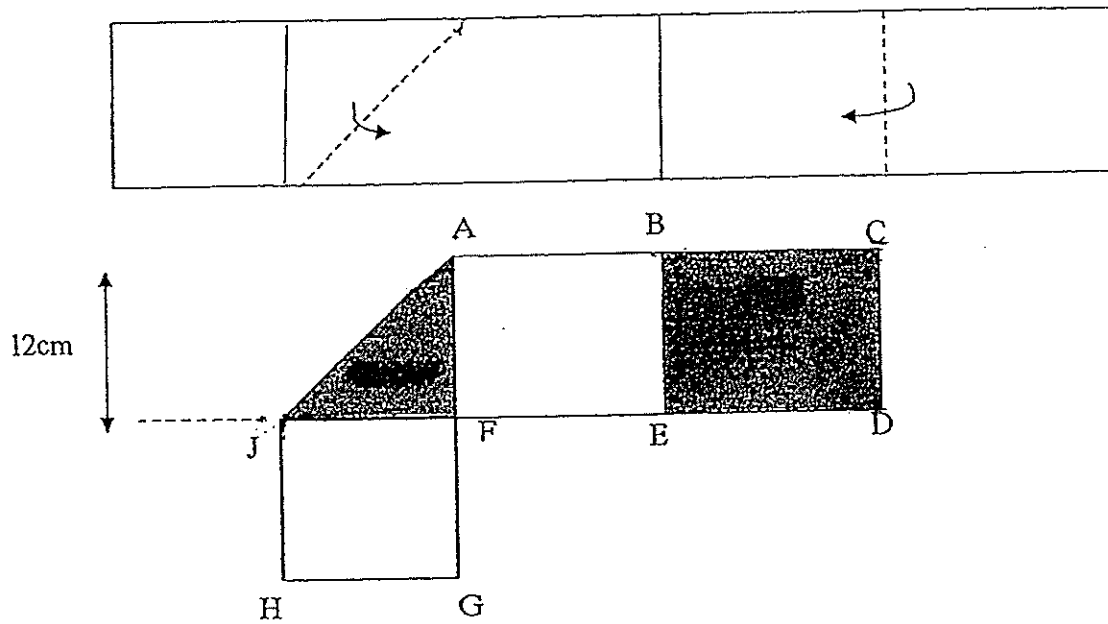
Ans: _____ [4m]

14. At a gift shop, the number of \$2 gift packs, \$5 gift packs and \$10 gift packs were in the ratio of $16 : 9 : 7$. $\frac{1}{8}$ of the \$2 gift packs and 34 of the \$5 gift packs were sold. The remaining gift packs were worth \$1975. How many of the \$10 gift packs were there?

Do not write
in this space

Ans: _____ [4m]

15. A rectangular piece of paper (not drawn to scale) was folded along the dotted lines to form the figure as shown below. $FGHJ$ is a square, AJF is a triangle and $ABEF$ is a rectangle. $AF = 12\text{cm}$. F is the midpoint of AG . The ratio area of the shaded triangle AFJ to the shaded rectangle $BCDE$ to the rectangular piece of paper is $2 : 3 : 24$. Find the area of rectangle $ABEF$



Ans: _____

16. A bookstore offered a discount of \$15 for every \$100 spent. If the total spending exceeds \$200, an additional discount of 7% is given.
- (a) Ahmad bought \$248 worth of books from the bookstore. How much did he pay after the discount?
- (b) Dave paid \$192.60 for some books inclusive of GST of 7%. What was the price without GST?

Do not write
in this space

Ans: (a) _____ [3m]

(b) _____ [2m]

17. Joy and Hassan had a collection of 240 magnets at first. Then Hassan borrowed $\frac{1}{5}$ of the number of magnets that Joy had. Later, Hassan lent out $\frac{1}{4}$ of the number of magnets that he had to Joy. Finally, Joy gave 40 magnets to Hassan. In the end, Joy had 26 magnets fewer than Hassan. How many magnets did Hassan have at first?

Do not write
in this space

Ans: _____ [5m]

18. Anna and Bella had a total of 330 coloured papers. Bella had 20 more coloured papers than Anna. Anna used 3 times as many coloured papers Bella and was left with half the amount of coloured papers that Bella had left
- (a) How many coloured papers did Bella have at the beginning?
- (b) How many coloured papers did Anna have at last?

Ans: (a) _____

(b) _____

End of Paper



ANSWER SHEET

EXAM PAPER 2014

SCHOOL : ROSYTH

PRIMARY : P6

SUBJECT : MATHEMATICS

TERM : CA1

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

16) 253108

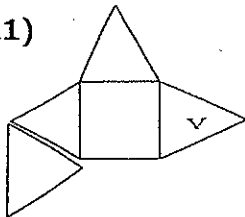
17) 4875

18) 22%

19)

20) 2

21)



22) $13\frac{1}{3}$

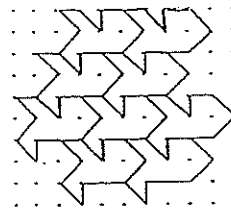
23) 26

24) 60

25) Friday

26) 27.57°C

27) 60 kg



28) $28y - 8$

29) 15 cm^2

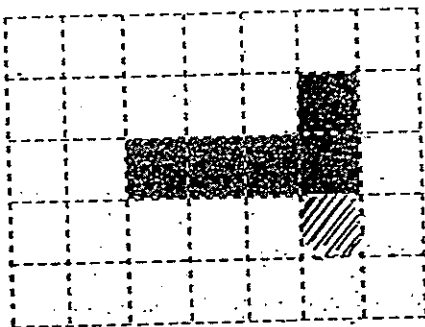
30) $16\pi - 32$

Paper 2

1) 6 : 5

2) $12/16 = 6/8 = \frac{3}{4}$

3)



$$4) 3 \times 1 = 3$$

$$3 \div 2 = 1.5$$

$$2 \times 1 = 2$$

$$2 \div 2 = 1$$

$$1.5 + 1 = 2.5 \text{ cm}^2$$

$$5) \frac{1}{2} \pi \times 16 = 25.13$$

$$\frac{1}{2} \times \pi \times 8 = 12.57$$

$$25.13 + 12.57 + 8 = 45.70 \text{ cm}$$

$$6) 57 + 75 = \$132$$

$$60\% \rightarrow 132$$

$$1\% \rightarrow 132 \div 60 = 2.2$$

$$20\% \rightarrow 2.2 \times 20 = \$44$$

$$44 + 57 = 101$$

$$100\% \rightarrow 2.2 \times 100 = 220$$

$$101/220 \times 100 = 45.91\%$$

$$7) \text{area of } 1\Delta + \bigcirc$$

$$\rightarrow \frac{1}{2} \bigcirc + 1 \bigcirc$$

$$= 1\frac{1}{2} \bigcirc$$

$$= \frac{3}{2} \times 3.14 \times 5 \times 5$$

$$= 117.75$$

$$117.75 - 33 = 84.75$$

$$8) 3 + 3 + 12 = 18$$

$$1u \rightarrow 18 \div 2 = 9$$

$$\text{At first } \rightarrow 9 + 3 + 12 = 24$$

$$\text{a) is } 24$$

$$\text{b) is } 12$$

$$9) \text{a) } n + n + n = 3n$$

$$\text{b) } n + 2 + 2n + 2 = 3n + 4$$

$$\text{c) } 3n + 4 + 3 + 3 = 3n + 10$$

$$10) 18 \times 12 = 216$$

$$A \rightarrow \frac{1}{2} \times 12 \times 12 = 72$$

$$B \rightarrow \frac{1}{2} \times 18 \times 6 = 54$$

$$C \rightarrow \frac{1}{2} \times 6 \times 6 = 18$$

$$72 + 54 + 18 = 144$$

$$216 - 144 = 72 \text{ cm}^2$$

11) $11u \rightarrow 22$

$1u \rightarrow 22 \div 2 = 2$

$15u \rightarrow 2 \times 15 = 30$

12) $\frac{1}{2} \times 3.14 \times 10 = 15.7$

$\frac{1}{4} \times 3.14 \times 20 = 15.7$

$10 \text{ cm} + (15.7 \times 3) = 57.1 \text{ cm}$

13) $93 \times 0.20 = 18.60$

Difference $\rightarrow \$ (62.60) - 18.60 = 44.00$

Difference $\rightarrow \$1.00 \div 0.20 = \0.80

No of \$1 coin $\rightarrow \$44.00 \div 0.80 = 55$

14) $\$2 : \$5 : \$10$

$16 : 9 : 7$

$\frac{1}{8}$ of $\$2 \rightarrow \frac{1}{8} \times 16 = 2$

$14 : 9 : 7$

Value $\rightarrow 28 : 45 : 70$

$28 + 45 + 70 = 143$ units

Total value $\rightarrow \$ (1975 \div (34 \times 5)) = 2145$

$1u \rightarrow \$15$

Value of \$10 packs $\rightarrow 70u \rightarrow \1050

No. of \$10 gift packs $\rightarrow \$1050 \div \$10 = 105$

15) Area of $\square \rightarrow 12 \times 12 = 144$

Area of $\triangle \rightarrow \frac{1}{2} \times 12 \times 12 = 72$

AFJ : BCDE:

$2 : 3 : 24$

$72 : 108 : 864$

$2u \rightarrow 72$

$1u \rightarrow 72 \div 2 = 36$

$3u \rightarrow 36 \times 3 = 108$

$36 \times 24 = 864$

$864 - 144 - 72 - 72 - 108 - 108 = 360 \text{ cm}^2$

16)a) $15 \times 2 = 30$

$248 - 30 = 218$

$0.07 \times 2.18 = 15.26$

Total discount $\rightarrow 30 + 15.26 = 45.26$

Final price $\rightarrow 246 - 45.26 = \202.74

16)b) $107\% \rightarrow 192.60$
 $1\% \rightarrow 1.80$
 $100\% \rightarrow \$180$

17)

	Joy	Hassan
In the end	$(240 - 25) \div 2 = 107$	$270 - 107 = 133$
Joy gave 40 magnet to Hassan	$107 \div 40 = 147$	$133 - 40 = 93$
Hassan lent $\frac{1}{4}$ on his magnet to Joy	$147 - 31 = 116$	$3u \rightarrow 93$ $1u \rightarrow 31$ $4u \rightarrow 124$
Hassan borrowed $\frac{1}{5}$ of Joy magnet	$4u \rightarrow 116$ $1u \rightarrow 29$ $5u \rightarrow 545$	$129 - 29 = 95$

18)a) $2u + 20 \rightarrow 330$
 $1u \rightarrow 155$
 Stella at first $\rightarrow 155 \div 20 = 175$
 b) $5u + 40 = 175$
 Anna at last $\rightarrow 2u + 20$
 $2u + 20 \rightarrow 54 + 20 = 74$