**Rosyth School**
**First Continual Assessment 2015**
**Primary 6 Mathematics**

Name: _____ Register No. _____

Class: Pr 6 - _____

Date: 27th February 2015 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 8 pages (including this cover page)

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. **All diagrams are not drawn to scale unless stated otherwise.**

(20 marks)

---

1. Simplify $15p + 9 - 2 - 2p \times 4$.

(1) $7p + 7$

(2) $7p - 11$

(3) $13p - 17$

(4) $52p + 7$

Find the value of $\frac{3}{8} + 6$.

(1) $\frac{1}{16}$

(2) $\frac{4}{9}$

(3) $\frac{9}{4}$

(4) 16

3. 20% of the pupils in a class are girls and the rest are boys. What is the ratio of the number of girls to the number of boys?

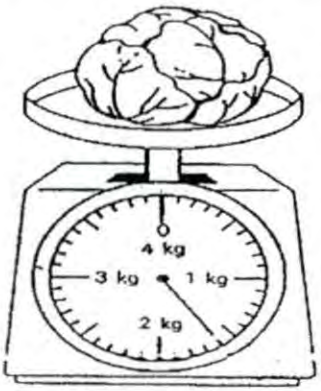
(1) 1 : 4

(2) 1 : 5

(3) 4 : 1

(4) 5 : 1

4. The figure shows a weighing scale. What is the mass of the cabbage?



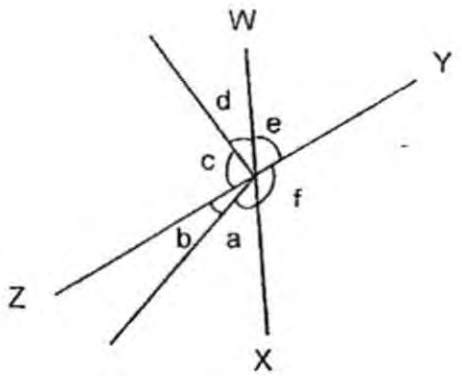

(1) 600 g

(2) 1 kg 60 g

(3) 1 kg 600 g

(4) 2 kg 400 g

5. In the diagram below, WX and YZ are straight lines.
Which of the following is correct?




(1) $\angle a = \angle e$

(2) $\angle b = \angle d$

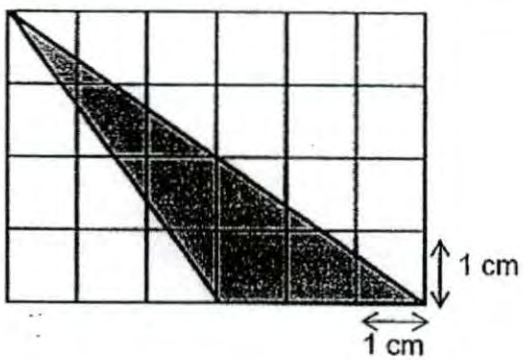
(3) $\angle e = \angle a + \angle b$

(4) $\angle f = \angle b + \angle c$

6. Express 1.03 as a percentage.

(1) 0.103%
(2) 1.03%
(3) 10.3%
(4) 103%

7. The diagram below is not drawn to scale. Calculate the area of the shaded triangle.

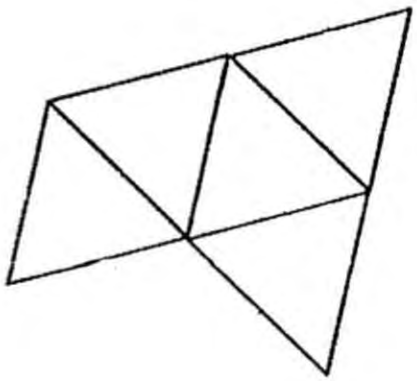



(1) 3 $cm^2$
(2) 6 $cm^2$
(3) 12 $cm^2$
(4) 24 $cm^2$

8. John had a meal at a restaurant. The total bill was $330 which included a 10% service charge. What was the original cost of the meal?

(1) $33
(2) $297
(3) $300
(4) $363

9. The figure below is made up of 5 equilateral triangles. The length of each side of the equilateral triangles is 7 cm. Find the perimeter of the figure.



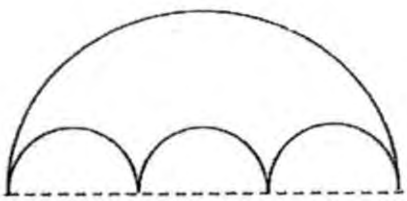
(1) 21 cm

(2) 35 cm

(3) 49 cm

(4) 55 cm

10. The figure below is made up of a big semicircle and three identical small semicircles. What is the perimeter of the figure if the radius of the big semicircle is 14 cm? (Take $\pi = \frac{22}{7}$)



(1) 22 cm

(2) 44 cm

(3) 72 cm

(4) 88 cm

11. The table below shows the number of pets owned by a class of pupils. If the total number of pets owned by the pupils is 38, how many pupils owned 2 pets?

| Number of pets | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| Number of pupils | 16 | 18 | ? | 2 | 1 |

(1) 1
(2) 5
(3) 10
(4) 17

12. In a primary school, $\frac{1}{4}$ of the pupils take public transport to school. Of the pupils who take public transport to school, $\frac{1}{3}$ of them take the SBS buses and the rest take the MRT. What fraction of the total number of pupils takes the MRT to school?

(1) $\frac{1}{12}$
(2) $\frac{1}{6}$
(3) $\frac{1}{4}$
(4) $\frac{3}{4}$

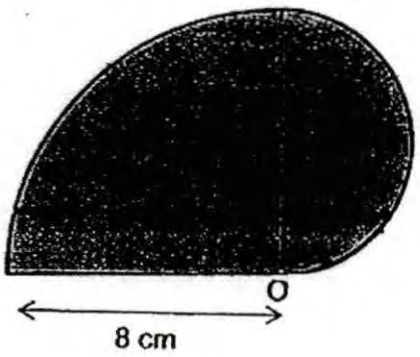
13. The ratio of the number of red marbles to the number of green marbles that Ben had was 5: 2. After he bought another 15 red marbles, the ratio of the number of red marbles to the number of green marbles became 4 : 1. How many more red marbles than green marbles did Ben have in the end?

(1) 19
(2) 20
(3) 30
(4) 60

14. There were 4 more girls than boys in a Music class. Mrs Kumar gave each girl 4 pencils and each boy 6 pencils. A total of 116 pencils were given to the children. How many girls were there in the class?

(1) 10
(2) 13
(3) 14
(4) 29

15. The figure below is made up of a semi-circle and a quadrant. O is the centre of the quadrant of radius 8 cm. What is the perimeter of the figure?
Give your answer in terms of $\pi$.




(1) $8\pi$ cm

(2) $12\pi$ cm

(3) $(8\pi + 8)$ cm

(4) $(12\pi + 8)$ cm

**End of Booklet A**

**Rosyth School**
**First Continual Assessment 2015**
**Primary 6 Mathematics**

Name: _____ Register No. _____

Class: Pr 6 - _____

Date: 27th February 2015 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. 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 B) | 20 | |

* This booklet consists of 8 pages (including this cover page)

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.

**All diagrams are not drawn to scale unless stated otherwise.**

(10 marks)

---

16. Arrange the following values from the smallest to the largest:

| $\frac{14}{10}$ , $\frac{1}{4}$ , 1.08 , 0.45 |
|---|

_____ , _____ , _____ , _____

smallest

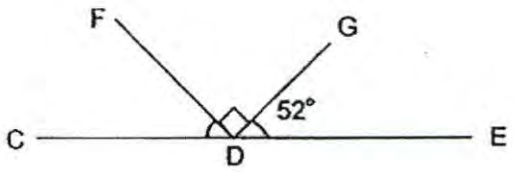
17. Madam Fatimah used 5 apples to bake 7 cakes. How many apples did she use to make 14 cakes?

Ans: _____

18. Express 35% as a fraction. Express your answer in the simplest form.

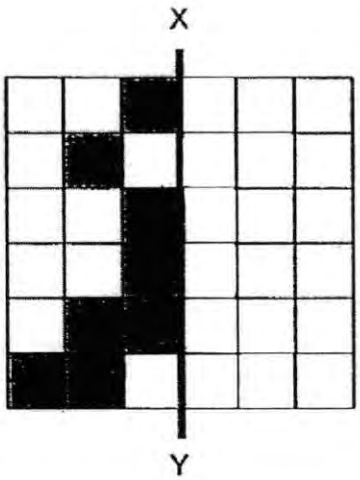
Ans: _____

19. CDE is a straight line. Find ∠CDF.




Ans: _____ °

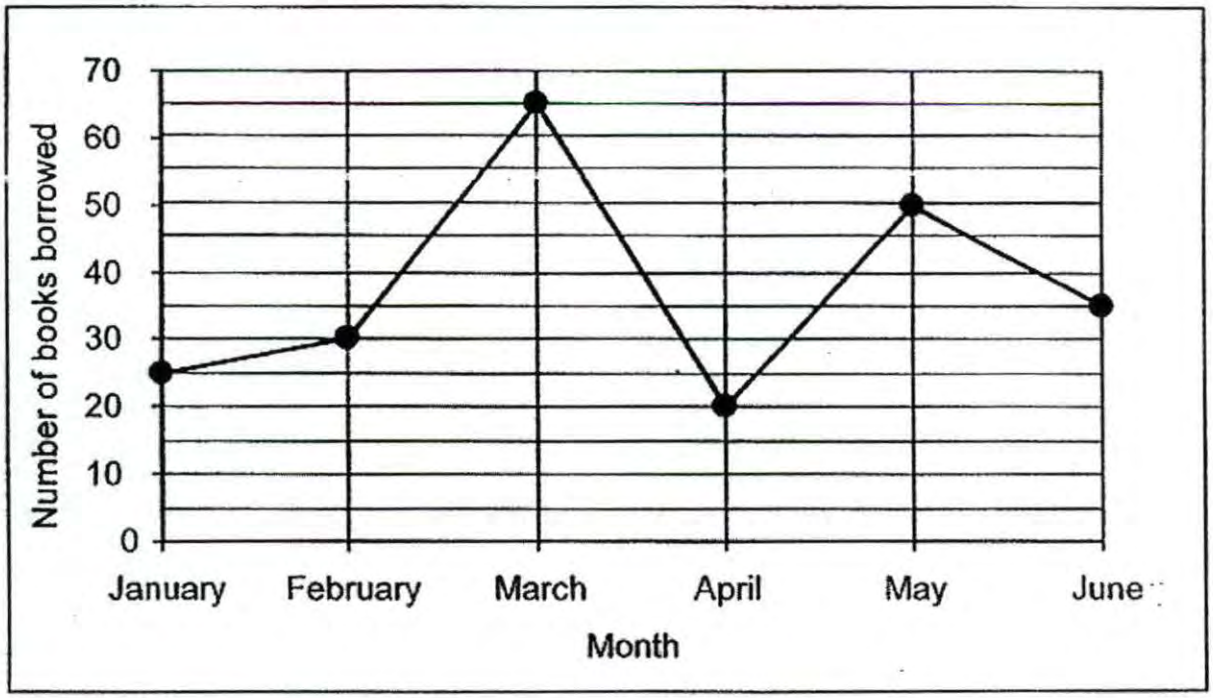
20. XY is the line of symmetry. Shade the correct squares to make a symmetric figure.




21. Johari is $h$ years old. Jun Xiang is 7 years older than he is.
Find their total age 3 years from now in terms of $h$.

Ans: _____

22. The line graph below shows the number of books borrowed from a class library from January to June. Study the graph carefully and answer the question.




In which month was the number of books borrowed twice the number of books borrowed in January?

Ans: _____

23. Nora had $\frac{3}{5}$ kg of butter. She used $\frac{1}{3}$ kg of the butter to bake a cake.

How much butter had she left? Express your answer as a fraction in the simplest form.

Ans: _____ kg

24. Aileen wants to buy 11 jars of cookies during the sale.

What is the minimum amount of money that she will need?


Ans: $ _____

25. Mui Lee paid $\$(2m + 3)$ for 2 plates of nasi lemak and a bowl of chicken porridge. A plate of nasi lemak cost $1.50 more than a bowl of chicken porridge. What was the cost of a bowl of chicken porridge in terms of $m$?

Ans: $_____

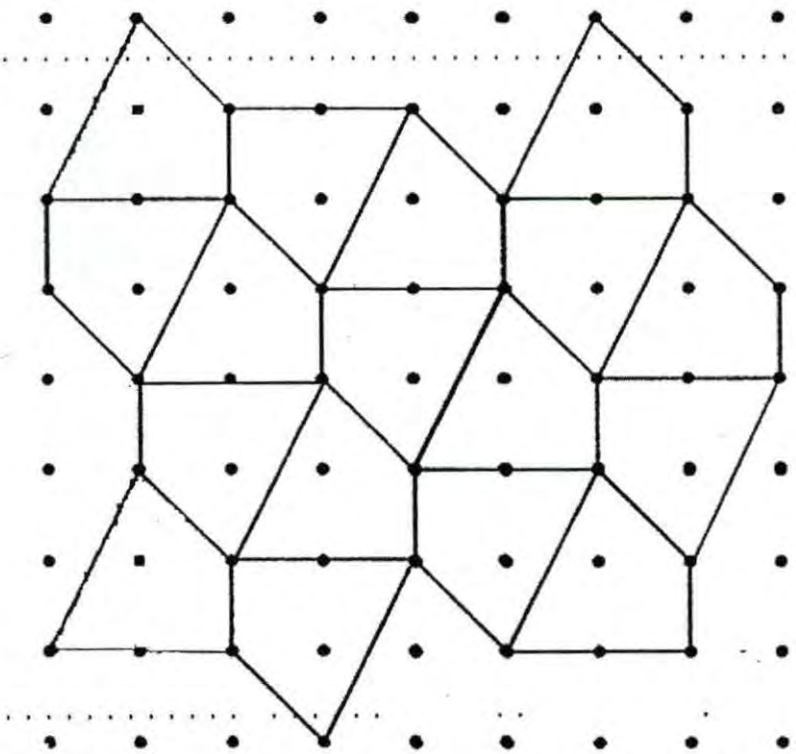
Questions 26 to 30 carry 2 marks each. **Show your workings clearly** in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

**All diagrams are not drawn to scale unless stated otherwise.**

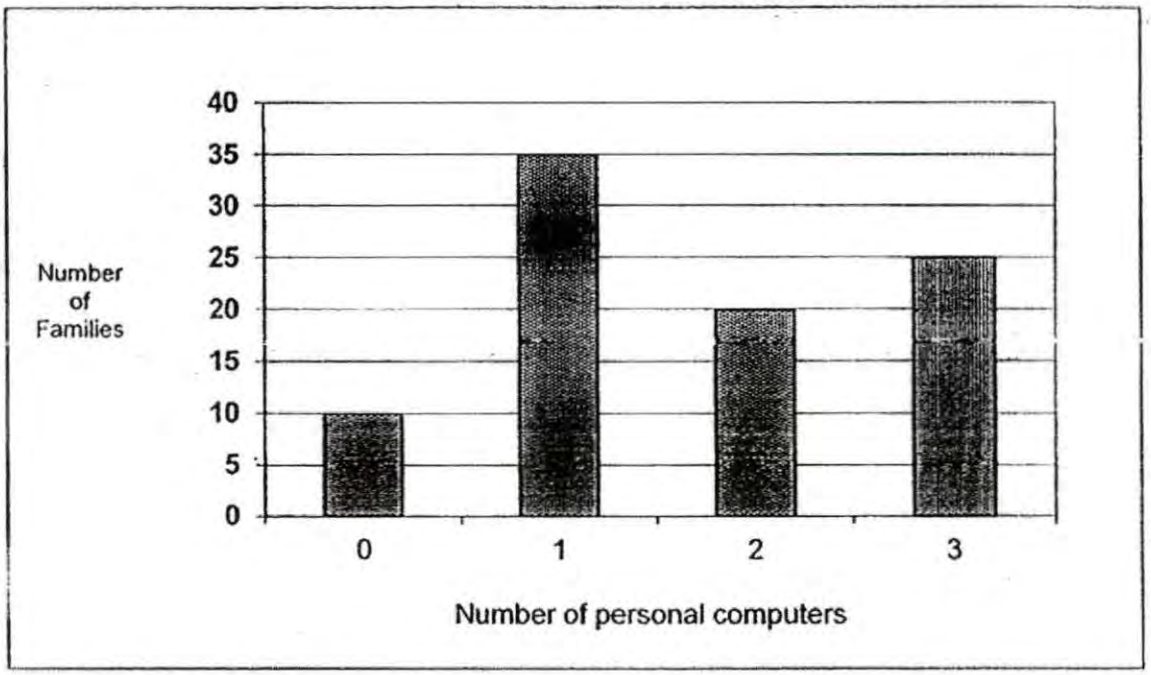
(10 marks)

---

26. Complete the tessellation by adding 2 more unit shapes around it.
(Use a pencil and ruler to draw and shade the unit shapes)



27. The graph below shows the number of personal computers each family has in a survey.



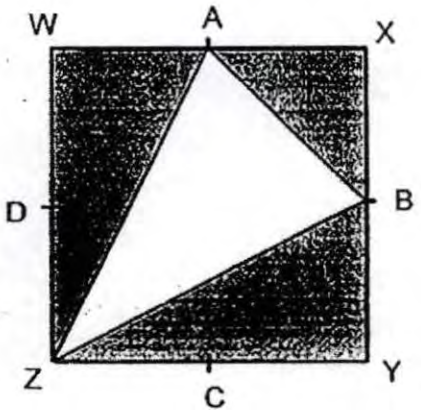

Find the total number of personal computers owned by all the families in the survey.

Ans: _____

28. The ratio of the length and breadth of a rectangle is 3 : 1. If the perimeter of the rectangle is 136 cm, what is the length of the rectangle?

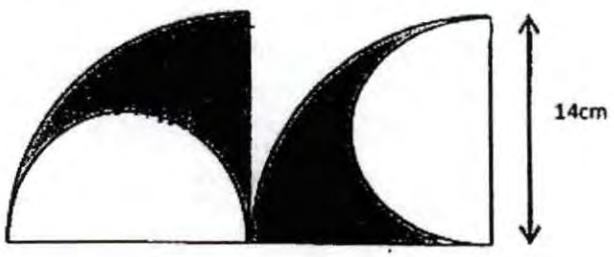
Ans: _____cm

29. A, B, C and D are the mid-points of the sides of a square WXYZ. The area of the square is 64 cm², what is the area of the unshaded triangle?




Ans: _____ cm²

30. The figure below is made up of 2 identical quadrants and 2 identical semicircles. Find the shaded area. (Take $\pi = \frac{22}{7}$ )




Ans: _____ cm²

**End of Booklet B**

**Rosyth School**
**First Continual Assessment 2015**
**Primary 6 Mathematics**

Name: _____ Register No. _____

Class: Pr 6 - _____

Date: 27th February 2015 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)**

**Questions 1 to 5 carry 2 marks each. <u>Show your working clearly</u> 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.**
**All diagrams are not drawn to scale unless stated otherwise.** (10 marks)

Do not write in this space

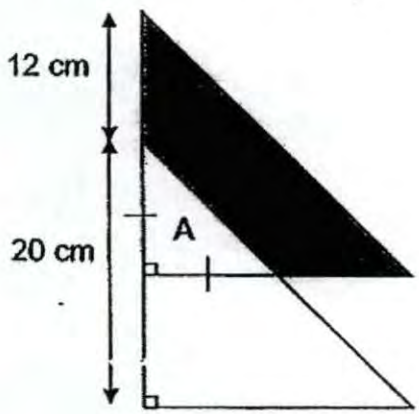
---

1. A television screen is $\frac{5}{6}$ m long and $\frac{4}{7}$ m wide. What is the area of the screen? Express your answer in the simplest form.

Ans: _____ $m^2$

---

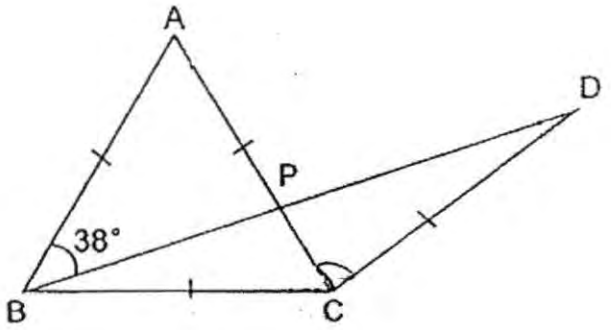
2. Two identical isosceles right-angled triangles overlap each other to form a smaller isosceles triangle A. Find the area of the shaded part.




Ans: _____ $cm^2$

3. ABC is an equilateral triangle and BCD is an isosceles triangle. Find ∠ DCP

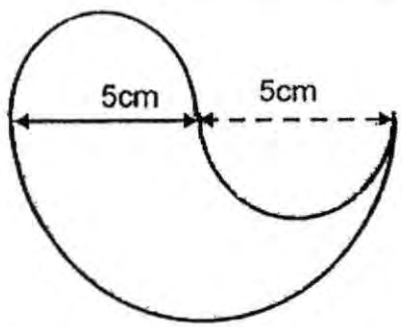
Do not write in this space




Ans: _____ °

---

4. The figure below is made up of 3 semicircles. Find the perimeter of the figure. Give your answer in terms of $\pi$.




Ans: _____ cm

5. A lego box has $\frac{4}{5}$ as many red lego blocks as yellow lego blocks. It has $\frac{2}{7}$ as many black lego blocks as yellow lego blocks. What is the ratio of the number of red lego blocks to the number of yellow lego blocks to the number of black lego blocks?

Do not write in this space

Ans: _____

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.
**All diagrams are not drawn to scale unless stated otherwise.** (50 marks)

Do not write in this space

6. Mr Tan put some potted plants in a straight row at equal distances apart. The distance between the 1st and 6th potted plant was 105 m. The distance between the 2nd and the last potted plant was 210 m. How many potted plants were there altogether?

Ans: _____ [3m]

7. Mary used $p$ cherries to decorate 3 similar cakes. After decorating 21 such cakes, she had 4 cherries left.

(a) Express the number of cherries Mary had at first in terms of $p$.

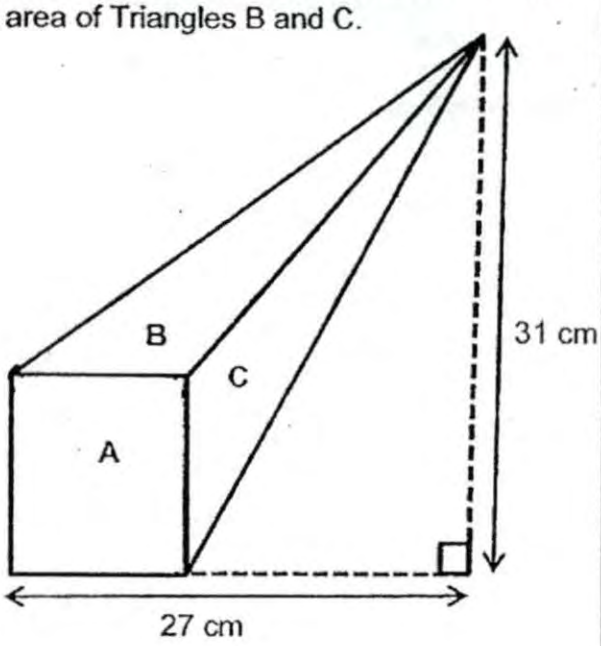
(b) Find the total number of cherries Mary had at first when $p = 6$.

Ans: (a) _____ [2m]

(b) _____ [1m]

8. The figure below is made up of a square and two triangles. The area of the Square A is 81 $cm^2$. Find the total area of Triangles B and C.

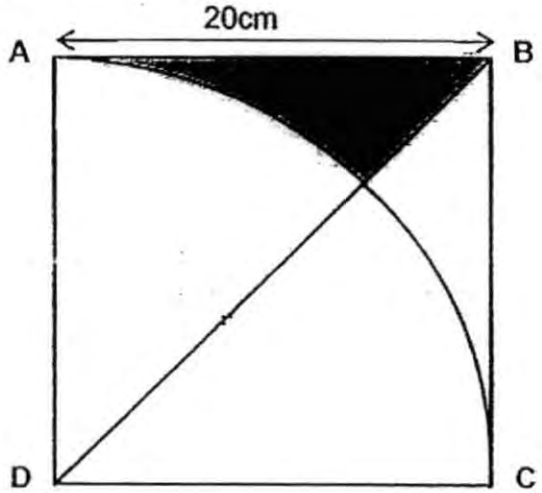
Do not write in this space




Ans: _____ [3m]

9. The figure below is made up of a square ABCD with sides 20 cm, one quadrant ACD and one triangle BCD. Find the area of the shaded part.

Take $\pi = 3.14$.




Do not write in this space

Ans:_____[3m]

10. There were 18 more white buttons than red buttons in the bottle. Miss Wong removed 21 white buttons and replaced them with 21 red buttons. After this, there were thrice as many red buttons as white buttons in the bottle.

(a) How many white buttons were there in the bottle after 21 white buttons were removed from it?

(b) What was the total number of buttons in the bottle in the end?

Do not write in this space

Ans: (a) _____ [2m]

(b) _____ [1m]

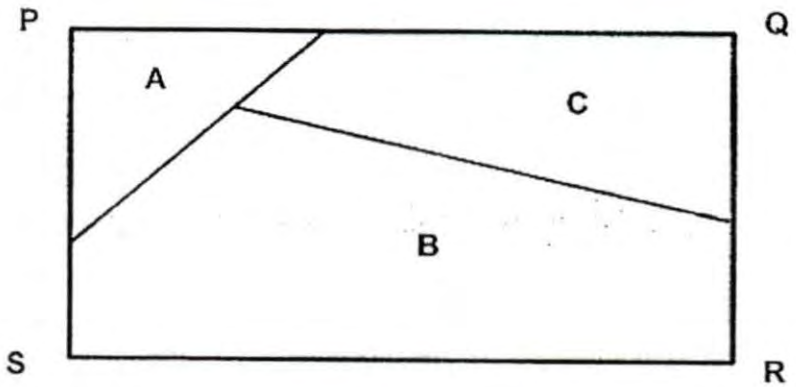
11. Kristal and Joy received a sum of money each. If Joy spent 10% of her money, she would have $6 less than Kristal. If Kristal spent 10% of her money, she would still have $1.60 more than Joy. What was the total amount of money that both girls received?

Do not write in this space

Ans: _____ [4m]

12. The figure shows a rectangle PQRS which is divided into three parts A, B and C. The ratio of area A to area B is 1 : 3 and the ratio of area B to area C is 5 : 9. The area of C is 81 $cm^2$. What is the area of rectangle PQRS?

Do not write in this space



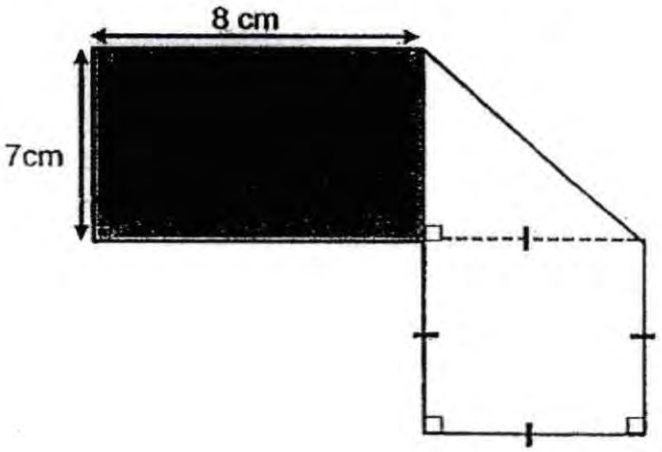

Ans: _____ [4m]

13. A rectangular piece of paper, coloured on one side, is folded to form the shape shown below.

(a) Find the perimeter of the rectangular piece of paper before it was folded.

(b) Find the area of the unshaded part of the shape shown below.

Do not write in this space




Ans: (a) _____ [2m]

(b) _____ [2m]

14. Andy is 4 times as old as his brother. In 7 years' time, the ratio of Andy's age to his brother's age will be 5 : 3. Their father will be 3 times Andy's age in 9 years' time.

(a) What is Andy's age now?

(b) What is the age difference between Andy and his father?

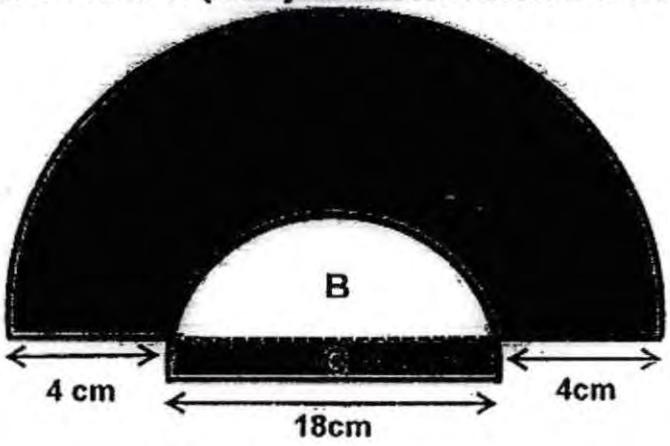
Do not write in this space

Ans: (a) _____ [2m]

(b) _____ [2m]

15. The figure below shows 2 overlapping semi-circles and two shaded areas, A and C. The diameter of the bigger semi-circle is 24 cm. The area of unshaded area B is $32\pi$ cm². Use the calculator value of $\pi$ to find the total shaded area of A and C. (Give your answer correct to two decimal places)

Do not write in this space




Ans:_____[4m]

16. Devi has 329 red, blue, yellow and green balloons. If the number of red balloons is tripled, the number of blue balloons is halved, the number of yellow balloon is increased by 28 and the number of green balloon is decreased by 32, there will be an equal number of balloons for each of the colours. How many balloons are there for each of the colours?

Do not write in this space

Ans: Red _____ [2m]

Blue _____ [1m]

Yellow _____ [1m]

Green _____ [1m]

17. During the P6 Post- Exam Activities, $\frac{2}{7}$ of the pupils and an additional 12 pupils attended the guitar lessons. $\frac{1}{4}$ of the remaining pupils and an additional 23 pupils attended the photography lessons. The rest of the pupils which were 193 pupils attended the hip-hop lessons.

Do not write in this space

(a) How many pupils attended the photography lessons?

(b) How many P6 pupils were there?

Ans: (a)_____ [2m]

(b)_____ [3m]

18. Eddie had $\frac{5}{8}$ as many toy soldiers as Ahmad. Ahmad gave away 30% of his toy soldiers while Eddie bought 17 more toy soldiers. In the end, the ratio of the number of toy soldiers Ahmad had to the number of toy soldiers Eddie had was 2 : 3.

(a) How many toy soldiers did Ahmad have at first?

(b) How many toy soldiers did Eddie have in the end?

Do not write in this space

Ans: (a) _____ [3m]

(b) _____ [2m]

End of Paper

**ROSYTH SCHOOL**
**CA 1 2015**
**PRIMARY 6 MATHEMATICS**

PAPER 1

1) 1 2) 1 3) 1 4) 3 5) 3 6) 4 7) 2
8) 3 9) 3 10) 4 11) 2 12) 2 13) 3 14) 3
15) 3

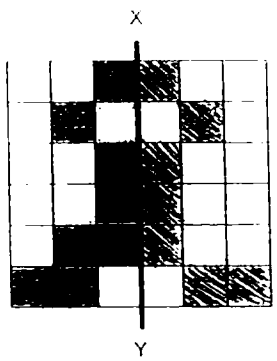
16) 1/4, 0.45, 1.08, 14/10

17) 14/7X5 = 10 apples

18) 7/20

19) 38°

20)




21) h+7+h+3+3 = (2h+13) years old

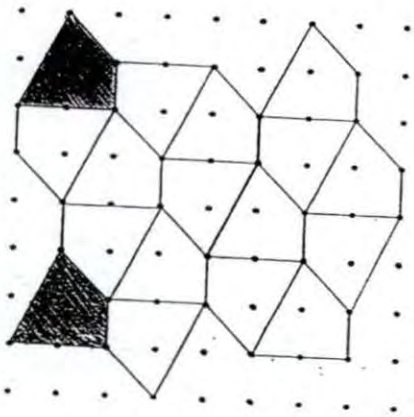
22) May

23) 4/15 kg

24) $(39+10) = $49

25) 2m+3-3 = 2m
Ans : $(2m/3)

26)



27) 35+40+75 = 150

28) 8u -- 136 cm
3u -- 3/8x136 = 51 cm

29) 8x8-2x1/2x8x4-1/2x4x4 = 24 sq cm

30) 1/2x22/7x14x14-22/7x7x7 = 154 sq cm

**Paper 2**

1) 5/6x4/7 = 10/21 sq m

2) 20-12 =8
1/2x8x8 = 32
1/2x20x20 = 200
200-32 = 168 sq cm

3) 180°-22°-22° = 136°
136°-60° = 76°

4) 2xπx2.5 + 1/2x2xπx5 = 5π+5π = 10π cm

5) R : Y : B
4 : 5
7 : 2

28 : 35 : 10

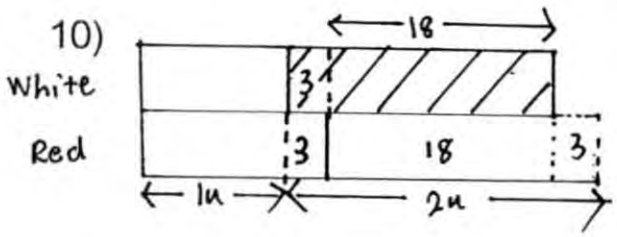
6) 105÷5 = 21
210÷21 = 10
10+1+1 = 12 potted plants

7a) (7p+4) cherries
b) 7x6+4 = 46 cherries

8) 81 = 9x9
Total area = 1/2x9x22 + 1/2x9x18 = 180 sq cm

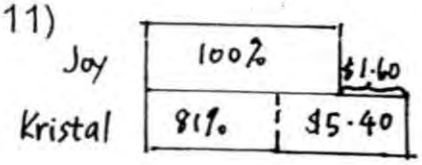
9) Area of shaded part = 1/2x20x20 - 1/8x3.14x20x20 = 43 sq cm

10)




a) 2u -- 21+3 =24
1u -- 24÷2 = 12 white buttons
b) 4u -- 4x12 = 48 buttons

11)




19% -- $(5.40-1.60) = $3.80
190% -- $38
$(38+6) = $44

12) A : B : C
1 : 3
5 : 9
---
5 : 15 : 27
27u -- 81 sq cm
47u -- 47/27x81 = 141 sq cm

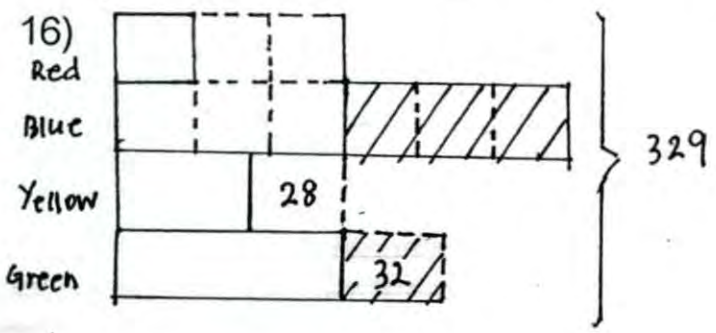
13a) Perimeter = (7x2+8+7)x2 = 58 cm
b) 1/2x7x7 + 7x7 = 24.5 + 49 = 73.5 sq cm

| 14) | Andy : brother | difference |
|---|---|---|
| now | 4 : 1 | 3u |
| in 7 years' | 5 : 3 | 2u |
| now | 8 : 2 | 6u |
| in 7 years' | 15 : 9 | 6u |

a) Andy is 8 years' old
b) Andy's age in 9 years' = 8+9 = 17
Andy's father in 9 years' = 17x3 = 51
Difference in age between Andy and his father = 51-17 = 34 years old

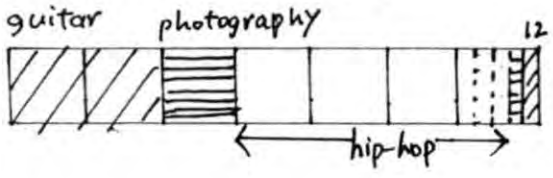
15) A+B = 1/2xπx12x12 = 72π
C+B = 1/2xπx9x9 = 40.5π
A+B+B+C = 72π+40.5π = 112.5π
A+32π+32π+C = 112.5π
A+C = 112.5π-32π-32π = 48.5π ≈ 152.37 sq cm

16)



329+28-32 = 325
Red : 325÷13 = 25
Blue : 25x3x2 = 150
Yellow : 25x3-28 = 47
Green : 25x3+32 = 107

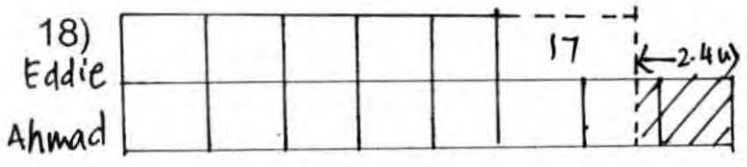
17)




a) 3u+3p = 193+23 = 216
1u+1p = 216÷3 = 72
72+23 = 95 pupils attended the photography lessons

b) Pupils not attending the photography lessons = 95+193 = 288
288+12 = 300
5u -- 300
7u -- 7/5x300 = 420 P6 pupils

18)




a) 20/100x8 = 2.4u
8u-2.4u = 5.6u
2 parts -- 5.6u
3 parts -- 3/2x5.6 = 8.4u
8.4u-5u = 3.4u
3.4u -- 17
8u -- 8÷3.4x17 = 40 toy soldiers at first

b) 5u -- 5÷3.4x17 = 25
25+17 = 42 toy soldiers in the end