Rosyth School
Preliminary Examination 2009
Primary 6 Mathematics

Name: _____   Register No. _____

Class: Pr 6 _____

Date: 26 Aug 2009   Parent's Signature: _____

Total Time for Booklets A and B : 50 min

PAPER 1
(Booklet A)

<u>Instructions to Pupils:</u>

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)

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1

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. Which of the following numbers is the largest?

   (1)   0.7

   (2)   0.62

   (3)   0.097

   (4)   0.506

2. 3 boys share 4 pizzas equally. Each boy gets ___?___ pizza.

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

   (2) $1\frac{1}{3}$

   (3) $1\frac{2}{3}$

   (4) $1\frac{1}{4}$

3. Find the value of $\frac{3}{5} \div 15$.

   (1) $\frac{1}{5}$

   (2) $\frac{1}{25}$

   (3)   9

   (4)   15

(Go on to the next page)

4   Elaine started her exercise at 7.45 a.m. and ended 1 hour and 30 minutes later. At what time did she finish her exercise?

    (1)   8.15 a.m.

    (2)   8.45 a.m.

    (3)   9.15 a.m.

    (4)   9.30 a.m.

5   What is the value of $45 - (12 + 6) \div 3 \times 2$?

    (1)   18

    (2)   26

    (3)   33

    (4)   42

6   The table below shows the rates of printing photographs at a shop.

Number of photographs	Cost
First 10 photographs	$0.35 per photo
11th photograph onwards	$0.30 per photo

How much would Alphonsus have to pay for printing 15 photos?

    (1) $1.50

    (2) $3.50

    (3) $4.50

    (4) $5.00

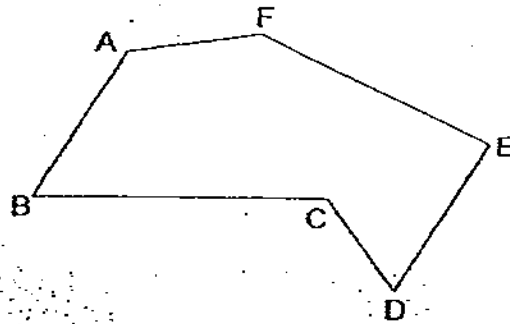7   Find the value of $\dfrac{40-3a}{5}$ when $a = 5$.

(1)   1

(2)   5

(3)   7

(4)   25

8   Ming Xuan poured some water into a rectangular container measuring
10 cm by 3 cm by 6 cm as shown below.
The water reached a height of 4 cm.
What was the volume of the water in the container?
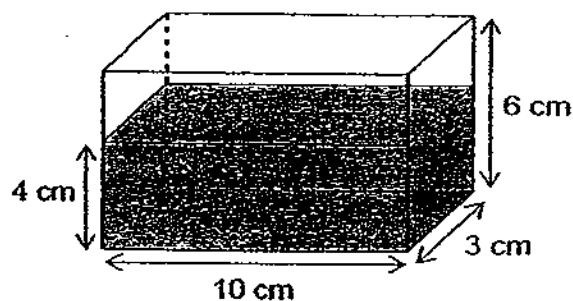
(1)   30 cm^3
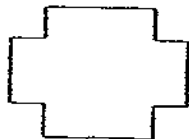
(2)   40 cm^3

(3)   120 cm^3

(4)   180 cm^3

4   (Go on to the next page)

9   There is one pair of parallel lines in the figure. They are _____?_____.
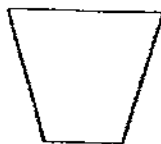

   (1)   AB and ED

   (2)   AB and CD

   (3)   AF and BC

   (4)   EF and DC

10   Mr Phua wants to tile his bathroom floor with tiles of only one shape and they must fit together with no gaps in between.
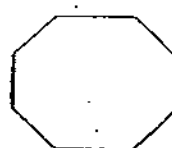Which of these shapes can he choose from?

   A   B   C   D

   (1)   A

   (2)   B

   (3)   C

   (4)   D

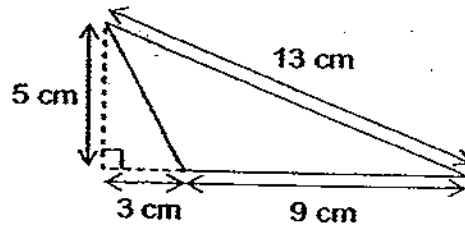11   Amirah added the first 53 even numbers.

$$2 + 4 + 6 + 8 + 10 + \ldots + 102 + 104 + 106 = ?$$

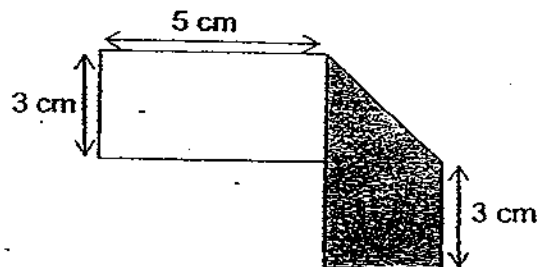In the sum above, what is the digit in the ones place?

(1)   0

(2)   2

(3)   6

(4)   4

12   There are 10 boys and 40 girls in a speech class.
      What is the percentage of boys in the speech class?

(1)   10%

(2)   20%

(3)   25%

(4)   80%

6   (Go on to the next page)

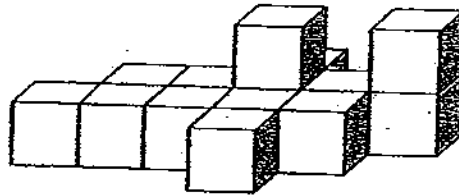13 Find the area of the triangle shown below.

(1)   7.5 cm^2

(2)   22.5 cm^2

(3)   30 cm^2

(4)   58.5 cm^2

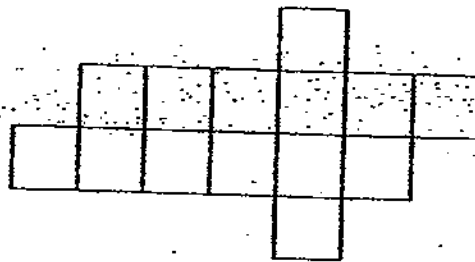14 A rectangular piece of paper, coloured on one side, is folded to form the shape shown below.

What is the area of the rectangular piece of paper before it was folded?

(1)   15 cm^2
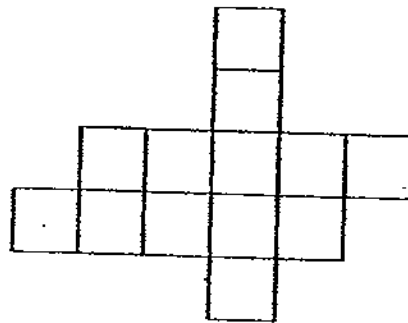
(2)   24 cm^2

(3)   28.5 cm^2

(4)   33 cm^2

(Go on to the next page)

15   What will the solid look like if viewed from the top?

(1)

(2)

(3)

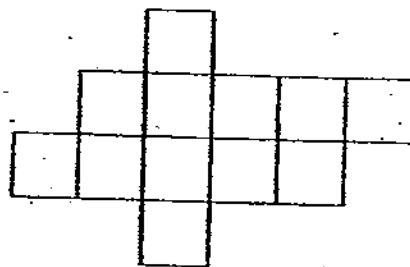(4)

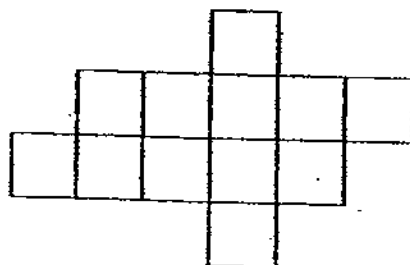(Go on to the next page)

ROSYTH

READY TO SERVE

Rosyth School
Preliminary Examination 2009
Primary 6 Mathematics

Name: _____ Register No. _____

Class: Pr 6 – _____

Date: 26 Aug 2009   Parent's Signature: _____

Total Time for Booklets A and B : 50 min

PAPER 1
(Booklet B)

<u>Instructions to Pupils:</u>

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 7 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.

(10 marks)

16

4	6	8

Using any 2 numbers in the box above, form the largest two-digit number which is a multiple of 4.

Ans: _____

17 Express $3\dfrac{8}{100}$ as a decimal.

Ans: _____

18 For every chocolate cake that Mary makes, she uses $\dfrac{2}{5}$ cup of chocolate powder. How many cups of chocolate powder will she use to make 15 chocolate cakes?

Ans: _____

(Go on to the next page)

19   The diameter of a circle is 14 cm. Find its area. (Take $\pi = \frac{22}{7}$)

Ans:_____ cm^2

20   The average of 4 numbers is 12. One of the numbers is 15.
       Find the average of the other 3 numbers.

Ans: _____

21   Satish's present age is 5 years 7 months.
       What will be his age in 11 months' time?

Ans: _____ years _____ months

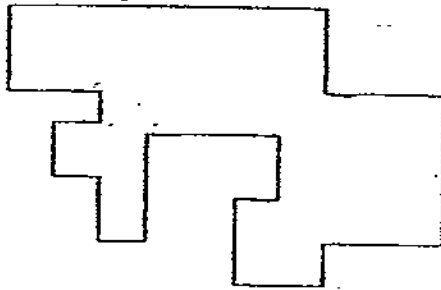3   (Go on to the next page)

22 Refer to the word below.

Write down the letters that contain parallel lines.

S I N G A P O R E

Ans: _____ and _____

23 How many angles inside the figure are greater than a right angle?

Ans: _____

24 Andy, Rui Ying and Victor shared $110 in the ratio 5 : 3 : 2 .
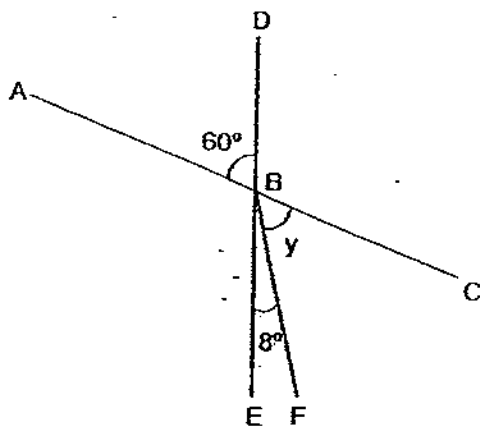
How much money did Rui Ying receive?

Ans: $_____

(Go on to the next page)

25   Express $\frac{1}{6}$ minute in seconds.

Ans: _____ s

26   In the figure (not drawn to scale), ABC and DBE are straight lines.
Find $\angle$y.

Ans: _____ °

5   (Go on to the next page)
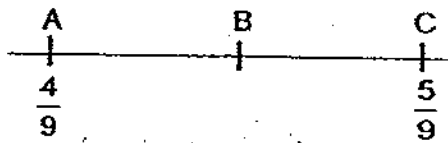
27   In the figure below, AB = BC.

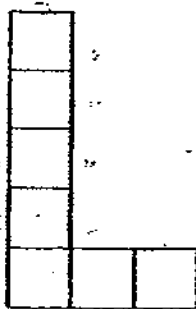The value of A is $\frac{4}{9}$. The value of C is $\frac{5}{9}$.

Find the value of B. (Give your answer in its simplest form.)

Ans: _____

28   The L-shaped figure below contains 7 identical squares.

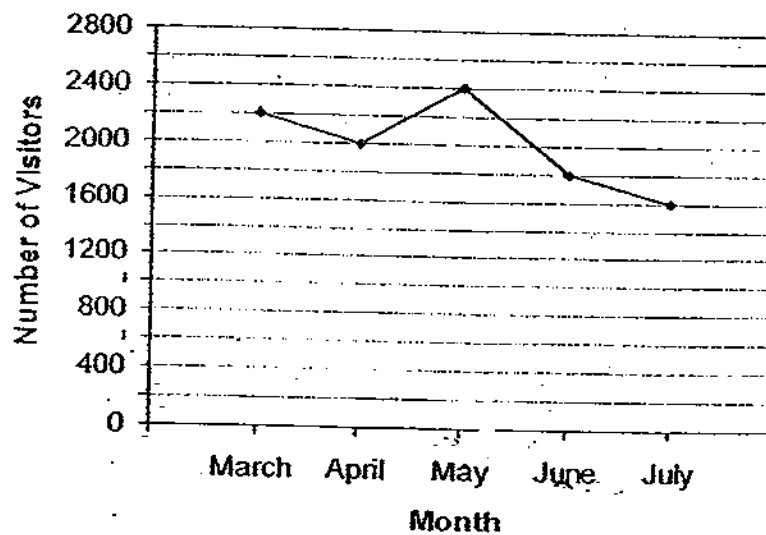The area of the figure is 28 cm². What is its perimeter?

Ans: _____ cm

(Go on to the next page)

29   Siti bought 4 identical files and 1 book.

The total cost for all the items is $20.

If the book costs $3a, how much did she pay for each file?

Ans: $_____

30   The graph below shows the number of visitors at a shopping mall.

What was the decrease in the number of visitors from May to June?

Ans: _____

END OF PAPER

Rosyth School
Preliminary Examination 2009
Primary 6 Mathematics

Name: _____   Register No. _____

Class: Pr 6 - _____

Date: 26 Aug 2009   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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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   Three identical cubes weigh 5.4 kg. 4 identical metal balls weigh 4.8 kg.

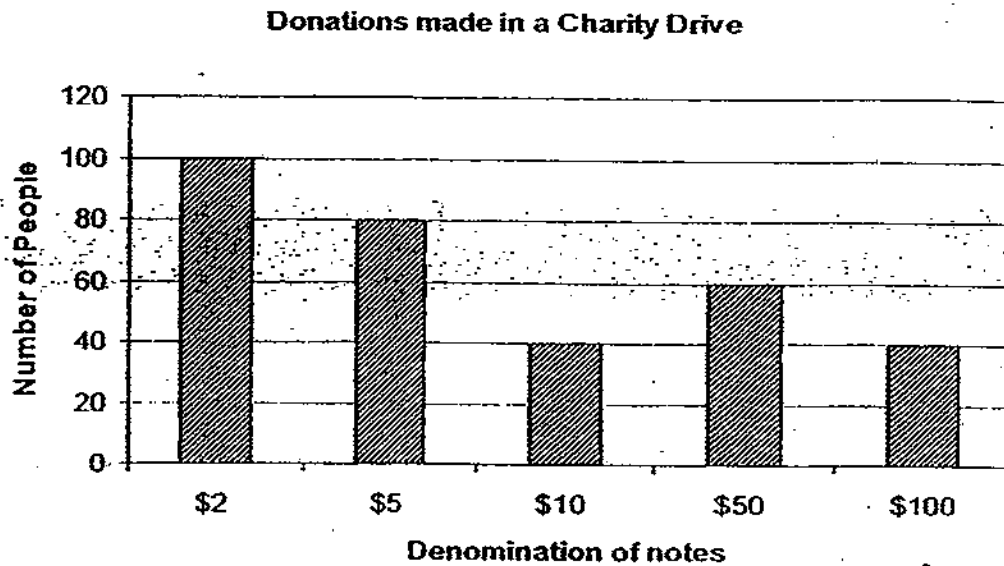How much do 4 cubes and 2 metal balls weigh?
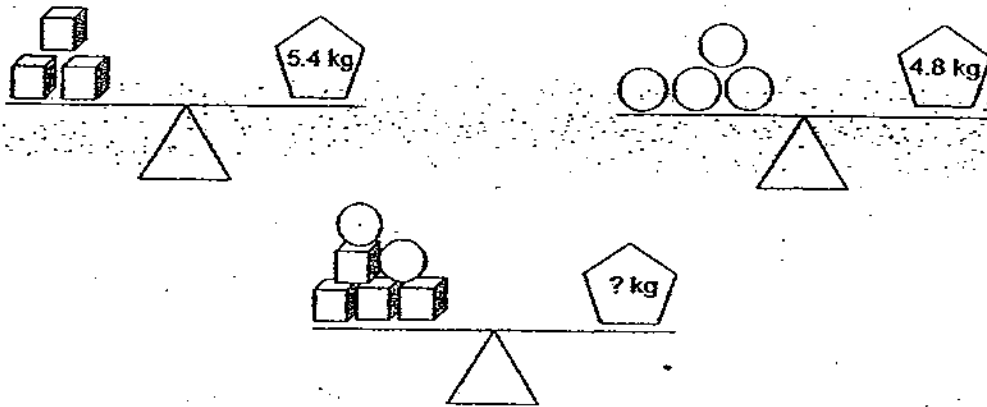
Ans: _____ kg [2m]

2   30% of a number is 48. What is 85% of the number?

Ans: _____ [2m]

The bar graph below shows the donations made in a charity drive.
Read the bar graph carefully and answer questions 3 and 4.
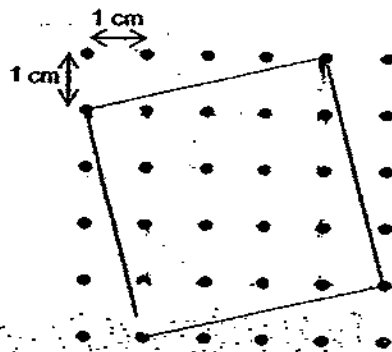
Donations made in a Charity Drive

3   How many people donated money in the charity drive?

Ans: _____ [2m]

4   What is the average sum of money each person donated?

Ans: _____ [2m]

(Go on to the next page)

5   Find the area of the square in the figure below.

Ans: _____ cm^2 [2m]

4   (Go on to the next page)

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 Jack took 4 tests. The average of these tests is 80 marks.

The maximum marks for each test is 100.

The difference between the Mathematics mark and Science mark is 23.

How many marks did he get for Mother Tongue?

Subject	Marks
English	85
Mathematics	95
Science	?
Mother Tongue	?

Ans: _____ [3]

7 The diagram below shows a triangle with 7, 8 and 9 at its corners.

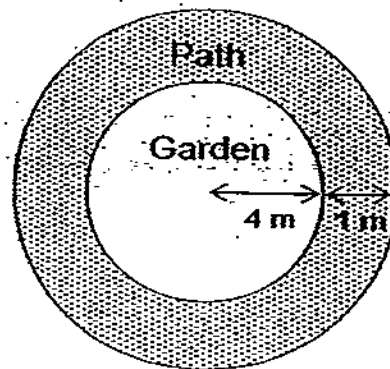Fill in the numbers 1, 2, 3, 4, 5 and 6 such that the sum on each side adds up to 23.

[3m]

5   (Go on to the next page)
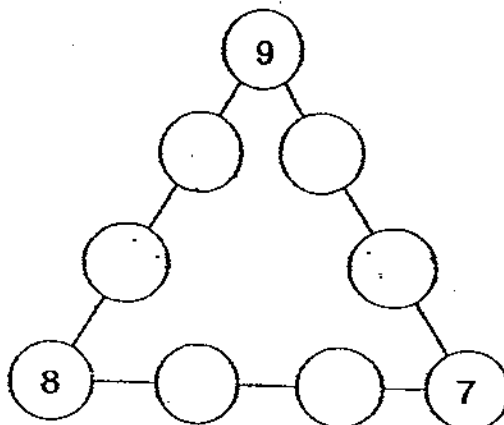
8   A circular garden of radius 4 m is surrounded by a path 1 m wide.

(a) Find the circumference of the outer edge of the path. Leave your answer in terms of π.

(b) Find the area of the path. Leave your answer correct to 2 decimal places.

Ans: (a)_____[1]

(b)_____[2]

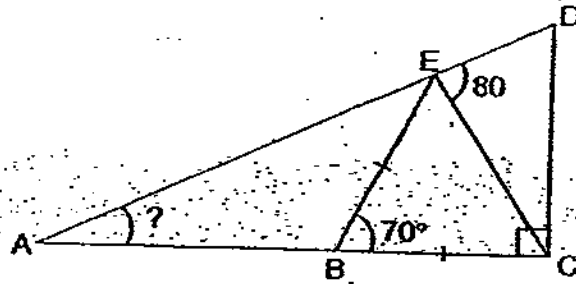9 In the figure, ACD is a right-angled triangle.
BC = BE and ∠CED = 80°.
Find ∠DAC.

D

E 80

?

A B 70° C

Ans: _____ [3]

10 $\dfrac{3}{5}$ of the pupils in School A are girls.

$\dfrac{2}{3}$ of the pupils in School B are girls.

There is an equal number of boys in School A and School B.
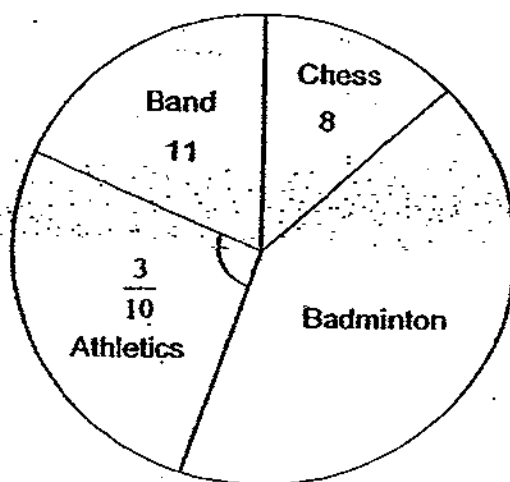
There are 400 more pupils in School B than School A.

Find the total number of pupils in the two schools.

Ans: _____ [3]

11 The pie chart below shows the different types of CCA a group of pupils participated in. 5 more pupils participated in Badminton than Athletics. How many pupils participated in Athletics?

Ans: _____ [3]

12 Observe the pattern below. Each new stage is constructed by drawing squares around the sides of the squares in the previous stage.
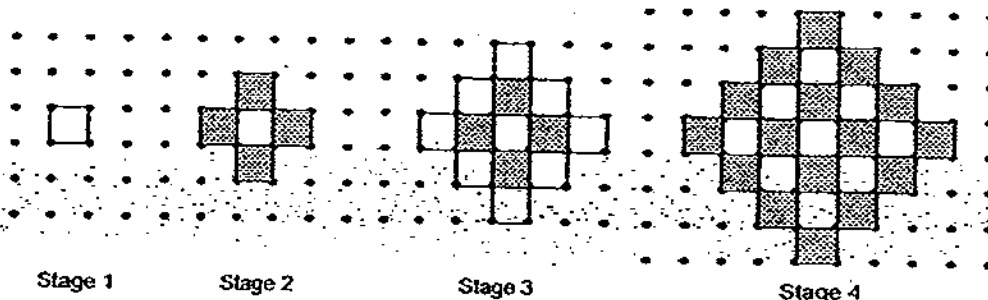
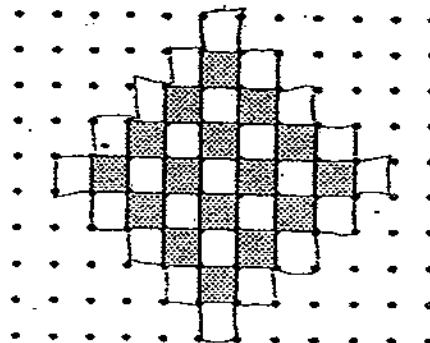(a) <u>Complete</u> the figure for Stage 5. [1m]
(b) Fill in the blanks in the table below. Write your answer in the space provided. [3m]

Stage 1   Stage 2   Stage 3   Stage 4

(a)

Stage 5

(b)

Stage Number	No. of squares in the middle row	No. of squares added	Total number of squares
1	1	0	1
2	3	4	5
3	5	8	13
4	7	12	25
5	9		41
. . .	. . .	. . .	. . .
10		36	

Ans: (i)_____[1]

(ii)_____[1]

(iii)_____[1]

13   The ratio of the number of girls to the number of boys in the Rosyth
Ani'Manga Club last year was 3:2.
When 24 girls joined the club this year, the ratio became 11:6.
Find the number of girls in the club this year.
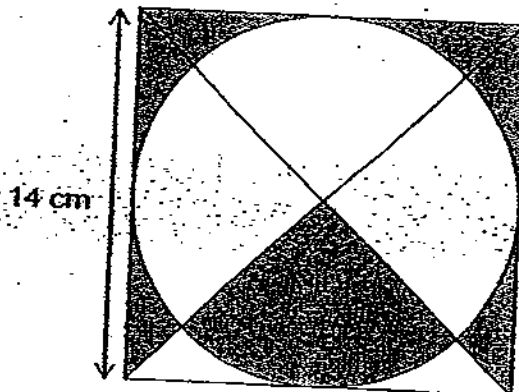
Ans: _____ [4]

14   The figure below is made up of a square and a circle.
      The side of the square is 14 cm.

      Find the total area of the shaded parts. (Take $\pi = \dfrac{22}{7}$).

14 cm

Ans: _____ [4]

12   (Go on to the next page)

15   800 people attended a concert.

The cost of a child ticket is $\frac{3}{4}$ the cost of an adult ticket.

The total amount collected from the ticket sales was $9472.

If 240 children attended the concert, how much was the cost of an adult ticket?

Ans: _____ [5]

16   In the diagram below, ABCD is a rectangular piece of card with
      AB = 30 cm and BC = 21 cm.
      After the 4 shaded squares are cut-off, the remaining piece is folded
      along the dotted line to make an open-box with a rectangular base
      PQRS.
      (a) What is the length of PQ?
      (b) Find the volume of the open box.
      (c) If 2-cm cubes are put into the box, what is the maximum number of
           cubes that can be put into the box?
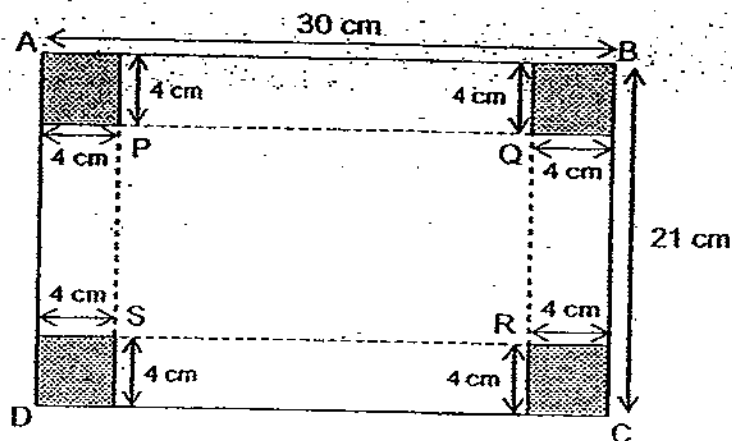
Ans: (a)_____[1]

         (b)_____[2]

         (c)_____[2]

17   Mrs Wong has 2000 plants in her farm.
     65% of the plants were orchids and rest were roses.
     After some orchids were sold, and some roses were added, the
     percentage of orchids became 45% of the all the plants in the farm.
     Given that 125 roses were added, how many orchids did she sell?

Ans: _____ [5]

15   (Go on to the next page)

18   Aaron and Kumar took part in a 24-km marathon.

Aaron ran half the distance at a speed of 10 km/h and jogged the rest of the way at a speed of 8 km/h.

Kumar ran half of his total time at 12 km/h and jogged the rest of the time at 6 km/h.

If they started the marathon at 8 am, at what time would each of them finish?

Aaron: _____ }

Kumar: _____ } [5 m]

End of Paper

EXAM PAPER 2009

SCHOOL : ROSYTH PRIMARY
SUBJECT : PRIMARY 6 MATHEMATICS

TERM : SA2

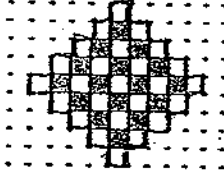| Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
1	2	2	3	3	4	2	3	1	2	2	2	2	4	4

16)84   17)3.08   18)6   19)154cm$_2$ 20)11

21)6 yr 6mth   22)E and N   23)8   24)$33   25)10s

26)52°   27) ½   28)32cm   29)$(20-3a/4)   30)600

Paper 2

1)1800x4=7200
  1200x2=2400
  7200+2400=9600
  =9.6kg
	2)48÷30=1.6
	  1.6x85=136

3)320	4)$25

5)(3x3) ÷4x(½ x4x1)=9+8
  =17cm$_2$
	6)80x4=320
	  320-95-85-95+23=68marks

7)   9
  1   4
  5   3
  8   2   6   7
	8)a)10∏m
	  b)28.27m$_2$

9)180° -70° =110°

110° ÷2=55°

90° -55° =35°

180° -80° -55° =45°

180° -70° =110°

180° -45° -110° =25°

∠DAC is 25°

10)4400

11)11+8+5=24

24÷4=6

6x3=18

18 pupils participated in Athletics.

12)a)

Stage 5

b)i)16   ii)19   iii)181

13)11-9=2

24÷2=12

12x11=132

There are 132 girls.

14)14x14=196

22/7x ¼x7x7=38.5

22/7x7x7=154

196-154=42

42÷8=5.25

5.25x6=31.5

31.5+38.5=70cm2

15)240x3=720

800-240=560

560x4=2240

2240+720=2960

9472÷2960=3.20

3.20x4=12.80

The cost is $3.20

16)a)30-4-4=22

The length is 22cm

b)21-4-4=13

22x13x14=1144

The volume is 1144cm3

c)22÷2=11

13÷2=6R1

4÷2=2

11x6x2=132

The maximum number is 132

17)orchids   65/100x2000=1300
             100-65=35

   Roses   35/100x2000=200
             200+125=825

   100-45=55
   825÷55=15
   15x45=675
   1300-675=625
   She sold 625 orchids.

18)a)10.42 am
   b)10.40 am