

Pei Chun Public School
Semestral Assessment 1 – 2012
Mathematics
Primary 6

Paper 1 (Booklet A)

You are not allowed to use a calculator.

Name: _____ ()

Date: 4 May 2012

Class: Primary 6 ____

Total Time for Booklets A and B: 50 min

Maths Teacher : _____

Parent's signature : _____

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 correct oval (1, 2, 3 or 4) on the Optical Answer Sheet.
(20 marks)

1. The height of your classroom door is approximately _____.

(1) 205 m

(2) 205 mm

(3) 205 cm

(4) 205 km

()

2. Which of the following is a common factor of 18 and 48?

(1) 9

(2) 8

(3) 6

(4) 4

()

3. Find the value of $73 - 5 \times (3 + 4) + 2$.

(1) 36

(2) 40

(3) 210

(4) 478

4. A machine can fill up 72 empty bottles with syrup in 9 minutes. At this rate, how many such bottles can the machine fill up with syrup in 1 hour?

(1) 480

(2) 648

(3) 800

(4) 4320

()

5. How many sixths are there in $2\frac{5}{6}$?

(1) 10

(2) 12

(3) 16

(4) 17

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6. Find the value of $\frac{2}{7} + \frac{3}{4}$.

(1) $1\frac{1}{28}$

(2) $\frac{5}{11}$

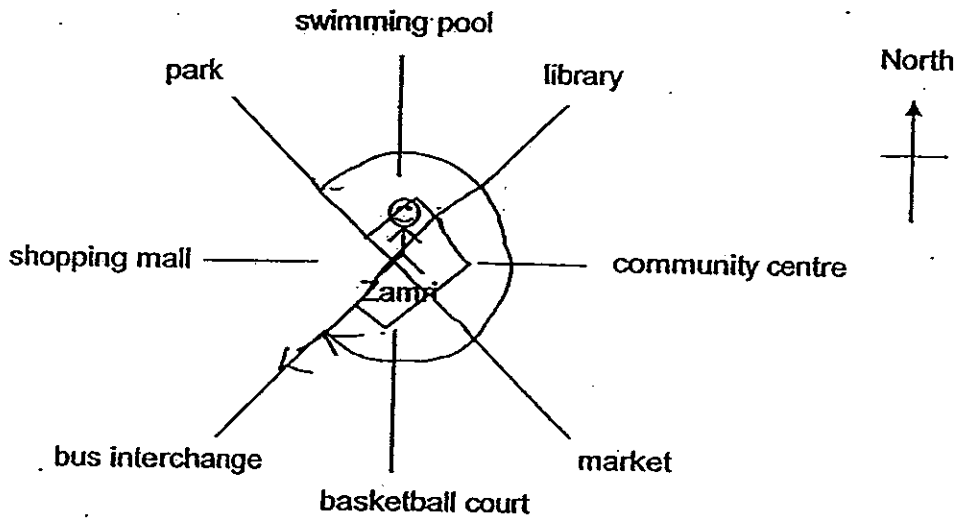
(3) $\frac{5}{28}$

(4) $\frac{13}{14}$

()

7

Zamri is facing the bus interchange after making a $\frac{3}{4}$ -turn in a clockwise direction.



Where was Zamri facing before he made the turn?

- (1) community centre
- (2) swimming pool
- (3) market
- (4) park

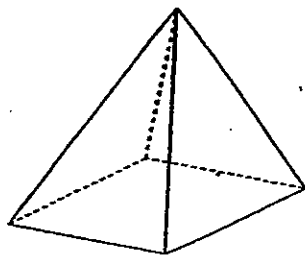
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8. Ben had some muffins. After giving 10 muffins to Ali, Ben had k muffins more than Ali. How many more muffins than Ali did Ben have at first?

- (1) $2k + 10$
- (2) $k + 20$
- (3) $k + 10$
- (4) $k - 10$

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9. How many faces do the two solid figures below have altogether?



Solid Figure A

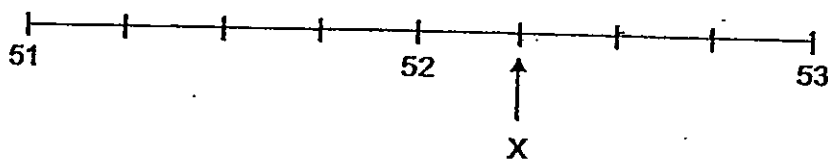


Solid Figure B

- (1) 7
- (2) 8
- (3) 9
- (4) 10

()

10. What is the value represented by the letter X below?



- (1) 52.1
- (2) 52.2
- (3) 52.25
- (4) 52.75

()

11. The ratio of the number of beads in Box A to the number of beads in Box B was 8 : 5. When $\frac{1}{4}$ of the beads in Box A was transferred to Box B, there were 56 beads in Box B. How many beads were there in Box B at first?

- (1) 70
- (2) 40
- (3) 14
- (4) 10

()

12. The table below shows the number of books read by some pupils last year.

Number of books read	0 - 10	11 - 20	21 - 30	31 - 40	41 - 50	51 - 60
Number of pupils	12	22	14	17	10	5

Tokens were given to pupils who read at least a certain number of books.

If $\frac{2}{5}$ of the pupils were given tokens, what was the smallest number of books a pupil must read to be given a token?

- (1) 20
(2) 31
(3) 32
(4) 40 ()
13. Helen and Irene started painting their rooms at 10.30 am. Helen completed painting her room at 1.05 pm. Irene was 20 minutes slower than Helen. How long did Irene take to complete painting her room?
- (1) 2 h 55 min
(2) 2 h 35 min
(3) 2 h 15 min
(4) 1 h 25 min ()
14. At first, Martin had 70% fewer stamps than Joel. After Martin sold 40% of his stamps, he had 198 stamps left. How many stamps did Joel have?

- (1) 1100
(2) 660
(3) 528
(4) 330 ()

15. Alex, Bob and Zainu shared a collection of bookmarks. Alex had $\frac{1}{3}$ of the total number of bookmarks Bob and Zainu had. Bob had $\frac{1}{5}$ of the total number of bookmarks Alex and Zainu had. If Zainu had 60 more bookmarks than Bob, how many bookmarks did the 3 boys have altogether?

- (1) 300
(2) 225
(3) 180
(4) 144

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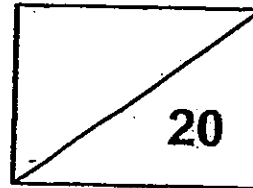
End of Booklet A

Pei Chun Public School
Semestral Assessment 1 – 2012
Mathematics
Primary 6

Paper 1 (Booklet B)
You are not allowed to use a calculator.

Name : _____ ()

Marks :



Class : Primary 6 _____

Date : 4 May 2012

Total Time for Booklets A and B: 50 min

Maths Teacher : _____

Parent's Signature : _____

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)

Do not write
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16. What is the missing number in the box?

$$907\ 805 = 900\ 000 + 7000 + \boxed{} + 5$$

Ans : _____

17. Find the value of 1.48×20 .

Ans : _____

SCORE

18. Express $\frac{7}{20}$ as a decimal.

Ans : _____

19. The table below shows the rental charges of a bicycle.

First hour	\$3
Subsequent hour or part thereof	\$2 per hour

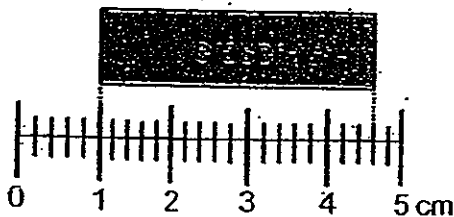
Aminah rented a bicycle for 2 hours and 30 minutes.
How much did she pay?

Ans : \$ _____

20. There are 24 boys in a class. $\frac{1}{6}$ of them wear glasses. How many boys do not wear glasses?

Ans : _____

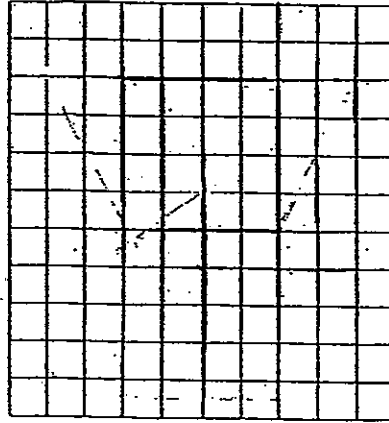
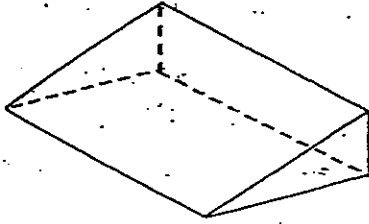
21. What is the length of the eraser shown below?



Ans : _____ cm

SCORE

22. Complete the net of the solid figure by drawing its missing face in the square grid below.



23. Amelia uses the recipe below to bake a cake.

<p><u>Cake recipe</u></p> <p>350 g flour</p> <p>150 g butter</p> <p>50 g sugar</p>
--

She has 2 kg of flour, 700 g of butter and 500 g of sugar.
How many such cakes can she bake at most?

Ans : _____

24. A sailboat is travelling at an average speed of 7 km/h. How long will it take to travel 53 km? Round off your answer to the nearest hour.

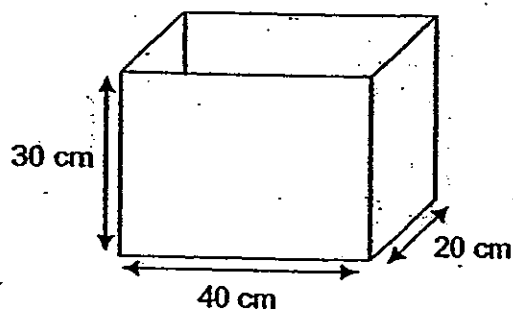
Ans : _____ h

SCORE

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25. The figure shows an empty rectangular container. What is the volume of water in the container when it is completely filled with water? Give your answer in litres.

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Ans: _____ l

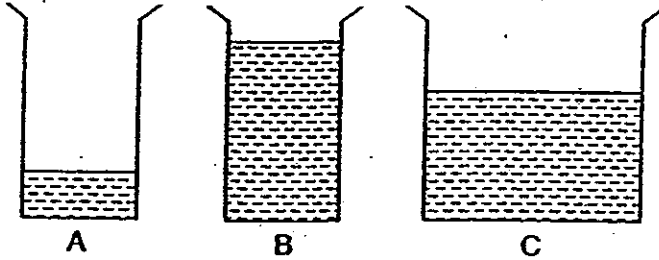
Ans: _____

SCORE

Questions 26 to 30 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

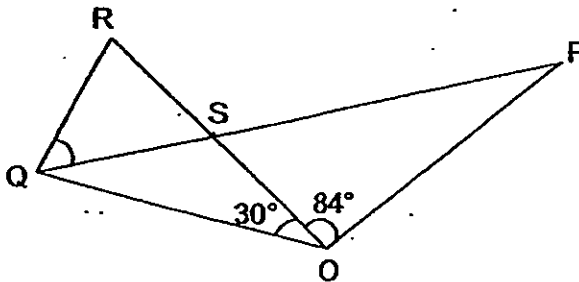
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26. The figure below shows 3 beakers of water. The volume of water in beaker A is 25% of the volume of water in beaker B. The volume of water in beaker B is 60% of the volume of water in beaker C. What is the ratio of the volume of water in beaker A to beaker B to beaker C? Express your answer in its simplest form.



Ans : _____

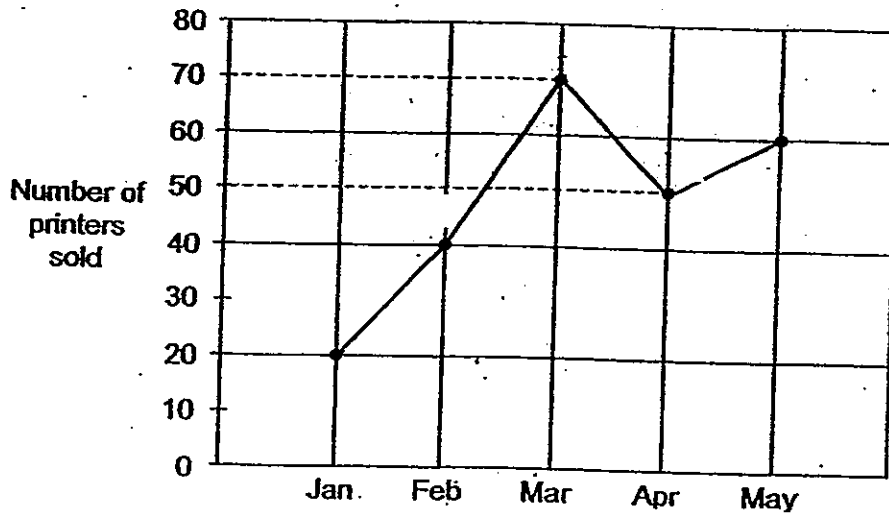
27. In the figure below, $PO = OR = OQ$. PSQ and RSO are straight lines. $\angle POR = 84^\circ$ and $\angle QOR = 30^\circ$. Find $\angle RQS$.



Ans : _____°

SCORE

28. The line graph shows the sales of printers in a shop for the first five months.



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- (a) How many months did it take for the sales of the printers to increase from 20 to 70?
- (b) What was the average number of printers sold per month from February to May?

Ans : (a) _____ months

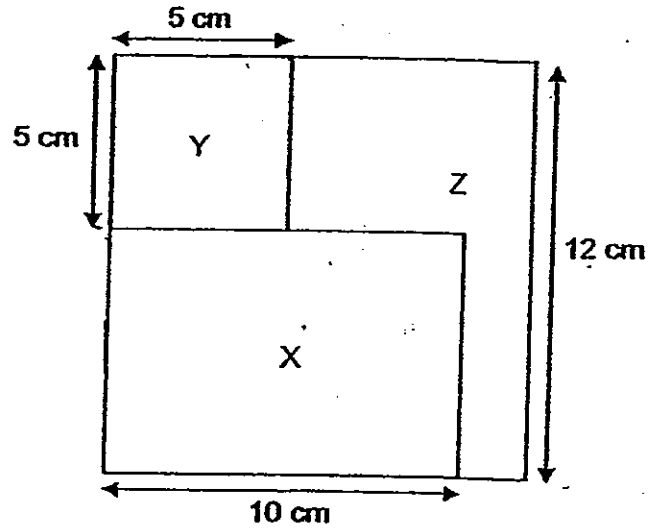
(b) _____

29. Gopal and Shah shared a packet of stamps. Gopal received 40% of the stamps. When Shah gave Gopal 12 stamps, they would have the same number of stamps. How many stamps were there in the packet?

Ans : _____

SCORE

30. A square of side 12 cm is divided into 3 parts X, Y and Z as shown in the figure below. All lines in the figure meet at right angles.



Find the area of part Z.

Ans : _____ cm^2

End of Booklet B

Set by : Mrs Soh Bee Lian

SCORE

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Pei Chun Public School
Semestral Assessment 1 – 2012
Mathematics
Primary 6

Paper 2
You are allowed to use a calculator.

Name : _____)

Class : Primary 6 _____

Date : 4 May 2012

Time : 1 h 40 min

Maths Teacher : _____

Parent's Signature : _____

Marks :

Paper 1 (Booklet A)	20
Paper 1 (Booklet B)	20
Paper 2	40
Booklet K Qn 14 – Qn 18	20
TOTAL	100

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. The ratio of the number of adults to the number of boys to the number of girls in a cinema is 9 : 7 : 5. There are 216 children. How many more children than adults are there?

Ans : _____

SCORE

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2. A piece of string $\frac{11}{12}$ m long is cut into smaller pieces, each measuring $\frac{2}{5}$ m long.
What is the length of the piece left over?

Ans : _____ m

3. Bulb A lights up every 60 seconds. Bulb B lights up every 40 seconds. If both bulbs light up together at 6.15 p.m., when will be the next time they will light up together again?

Ans : _____ p.m.

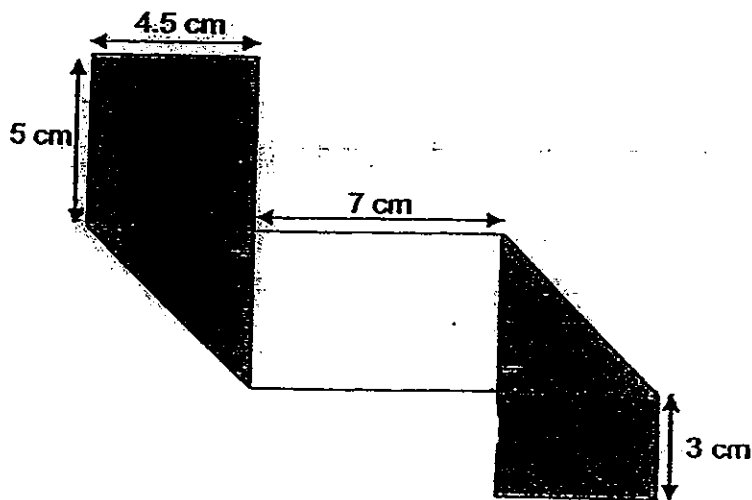
SCORE

4. 16% of Peter's monthly salary is the same as 20% of Ronnie's monthly salary. If Peter earns \$2400 per month, find the difference in their monthly salary.

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Ans : \$ _____

5. A rectangular piece of paper, coloured on one side, is folded to form the shape below. What is the perimeter of the piece of paper before it is folded?



Ans : _____ cm

SCORE

For questions 6 to 13, 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. (Total: 30 marks)

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6. A school paid \$12 006 for a total of 256 desks and chairs. A desk cost \$69 and a chair cost \$28. How many desks did the school buy?

Ans : _____ [3]

7. Faris had some stickers. He gave $\frac{1}{5}$ of his stickers to his sister and $\frac{1}{8}$ of the remainder to his brother. After buying another 96 stickers, Faris had $\frac{9}{10}$ of the stickers that he had at first. How many stickers did Faris have at first?

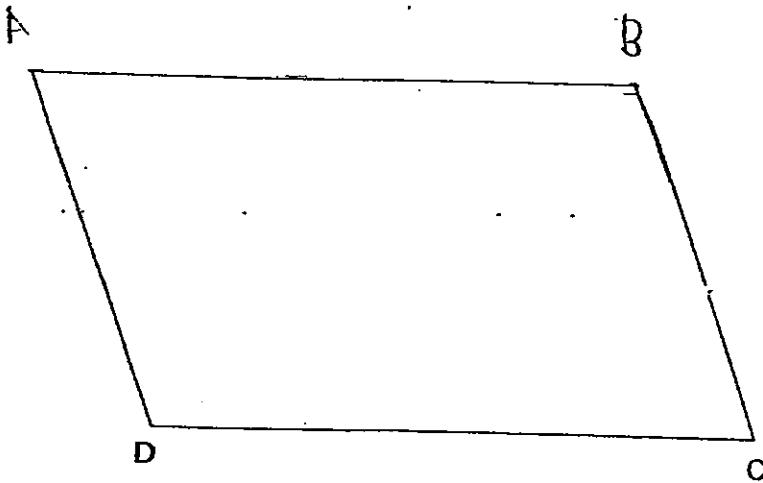
Ans : _____ [3]

SCORE

8. Alice and Rajoo had the same number of sweets at first. Then, Alice ate $\frac{1}{4}$ of her sweets and Rajoo ate $\frac{1}{3}$ of his sweets. In the end, Rajoo had 49 sweets fewer than Alice. How many sweets did Alice eat?

Ans : _____ [3]

9. (a) In the space below, draw a parallelogram ABCD in which $CD = 8$ cm and $BC = 5$ cm. $\angle ADC = 110^\circ$. The line CD has been drawn for you. [2]



- (b) Measure and write down the length of line AC.

Ans : (b) _____ [1]

SCORE

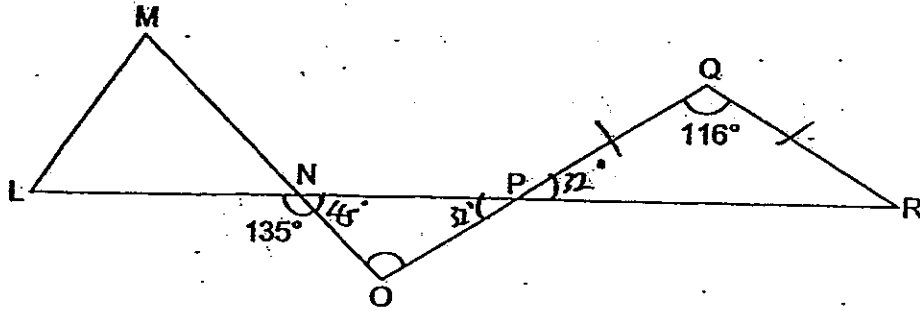
10. There were a total of 1040 red and blue beads in a box at first. The ratio of the number of red beads to the number of blue beads was 3 : 1. After some red beads and 65 blue beads were removed, there were five times as many blue beads as red beads left in the box. How many red beads were removed?

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Ans : _____ [4]

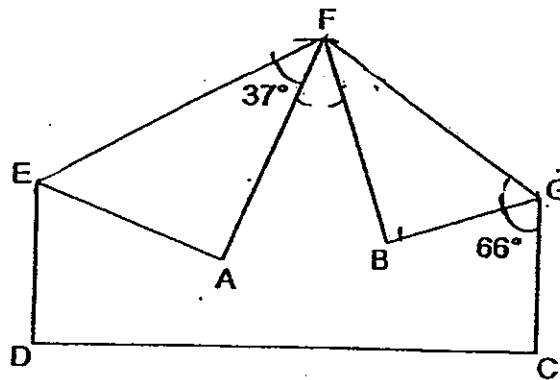
SCORE

11. (a) In the figure below, LNPR, MNO and OPQ are straight lines. $PQ = QR$. Find $\angle NOP$.



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- (b) A piece of rectangular paper was folded at two corners as shown in the figure below. Find $\angle AFB$.



Ans : (a) _____ [2]

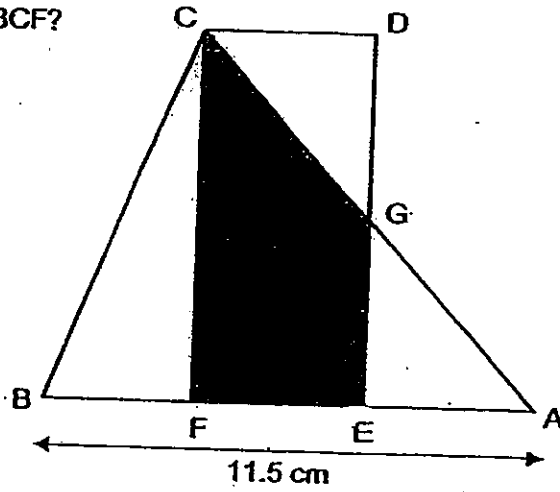
(b) _____ [3]

SCORE

12. In the figure below, ABC is a triangle and CDEF is a rectangle. BA = 11.5 cm and CF = 9 cm. The area of the shaded part is 27 cm² and it is $\frac{3}{4}$ of the area of Rectangle CDEF. Triangles CDG and AEG are identical.

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- (a) What is the length of CD?
(b) What is the area of Triangle BCF?



Ans : (a) _____ [2]
(b) _____ [3]

SCORE

13. Town A and Town B were 684 km apart. At 10 45, Jack drove from Town A to Town B. At the same time, Roy drove from Town B to Town A on the same road. Both of them did not change their speeds throughout their journeys. Roy and Jack passed each other at 15 30. If Jack was travelling 18 km/h slower than Roy, find Roy's speed.

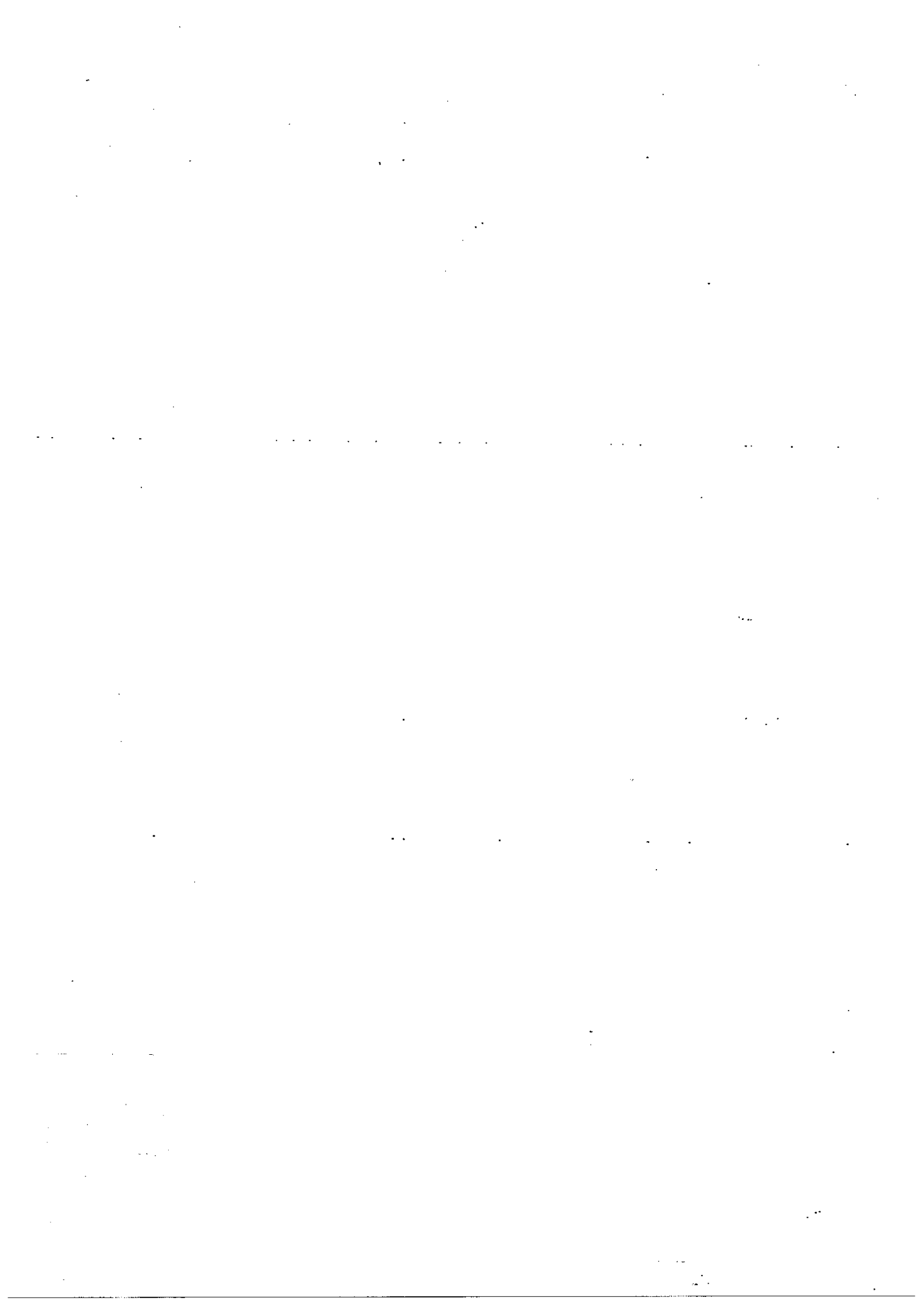
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Ans : _____ [4]

For questions 14 to 18, refer to Booklet K.

End of Paper 2

SCORE



Pei Chun Public School
Semestral Assessment 1 - 2012
Mathematics, Primary 6

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

16) 800

26) A : B : C
25 : 100 x6

60 : 100
150 : 600 : 1000
15 : 60 : 100
3 : 12 : 20

18) 0.35

- 19) 6
20) 20
21) 3.6
22)
23) 4
24) 8
25) 24

17) 29.6

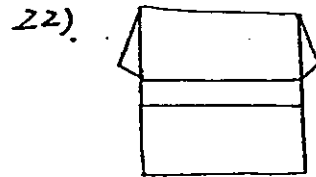
27) $\angle QOP = 30^\circ + 84^\circ = 114^\circ$
 $\angle OQS = (180^\circ - 114^\circ) \div 2 = 33^\circ$
 $\angle RQS = (180^\circ - 30^\circ) \div 2 - 33^\circ = \underline{42^\circ}$

28a) 2 months

28b) February to May = $40 + 70 + 50 + 60 = 220$
Average no. of printers = $220 \div 4 = \underline{55}$

29) Shah = $100\% - 40\% = 60\%$
Difference = $60\% - 40\% = 20\%$
 $20\% = 12 \times 2 = 24$
Total stamps = $24 \times 5 = \underline{120}$

30) Breath of X = $12\text{cm} - 5\text{cm} = 7\text{cm}$
Area of Y = $5\text{cm} \times 5\text{cm} = 25\text{cm}^2$
Area of X = $7\text{cm} \times 10\text{cm} = 70\text{cm}^2$
Area of whole figure = $12\text{cm} \times 12\text{cm} = 144\text{cm}^2$
Area of Z = $144\text{cm}^2 - 70\text{cm}^2 - 25\text{cm}^2 = \underline{49\text{cm}^2}$



Paper 2

1) Children units = $7 + 5 = 12\text{units}$
 $12\text{units} = 216$
 $1\text{unit} = 216 \div 12 = 18$
Adults = $18 \times 9 = 162$
Difference = $216 - 162 = \underline{54}$

2) Leftover = $\frac{11}{12} \div \frac{2}{5} = 2\frac{7}{24}$
Length of leftover = $\frac{11}{12} - (2 \times \frac{2}{5}) = \frac{7}{60}$

3) $60 = 60, 120, 180$
 $40 = 40, 80, 120$
 $120\text{ seconds} = 2\text{minutes}$
 $6:15\text{pm} + 2\text{mins} = \underline{6:17\text{pm}}$

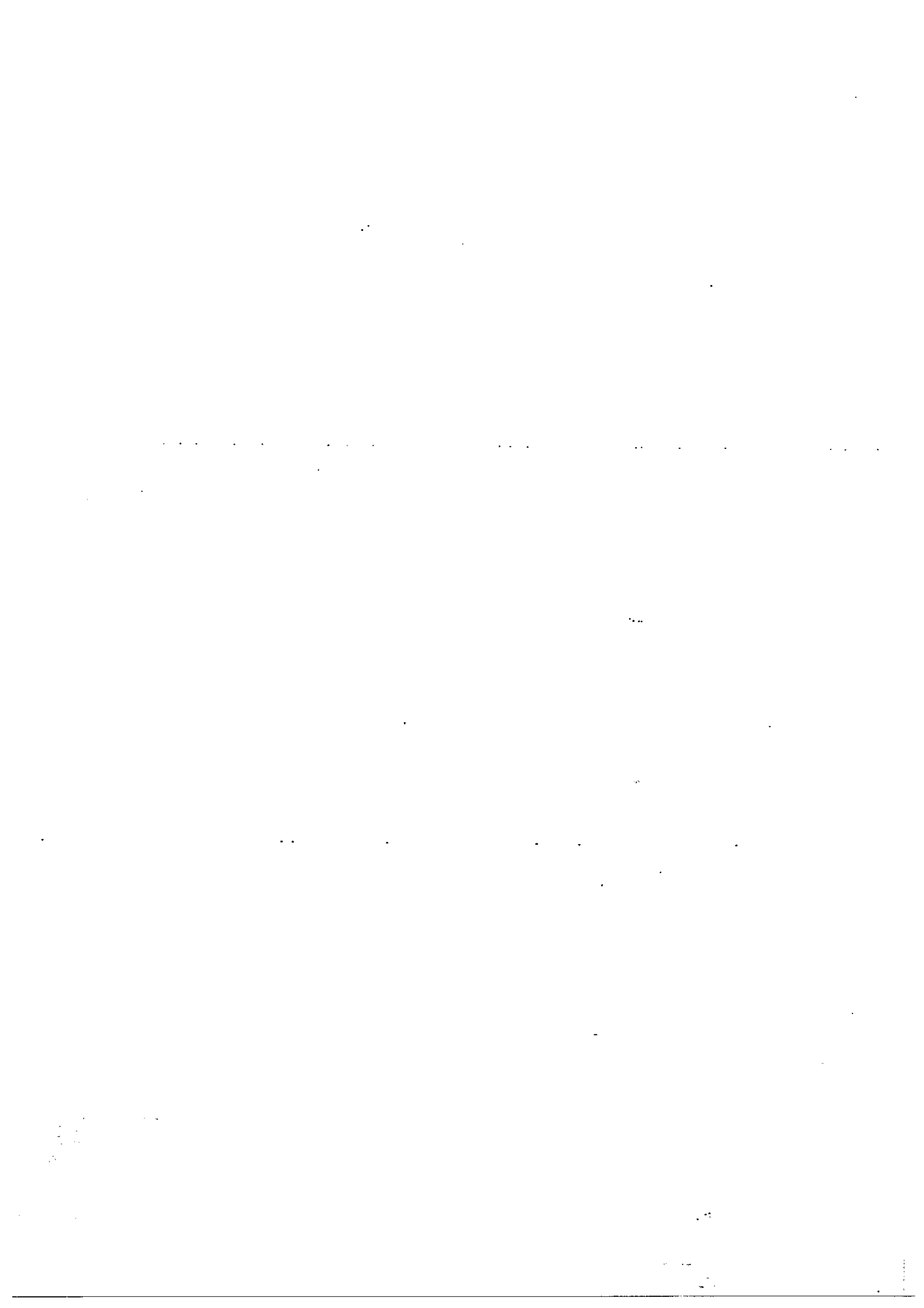
4) P : R
x20 16 : 20 x16

320 : 320
x20 84 : 80 x16
1680 : 1280

5) Perimeter = $(4.5 \times 6) + (3 \times 2) + (5 \times 2) + (7 \times 2)$
Perimeter = 57cm

Peter = $1680 + 320 = 2000$
 $2000\text{ units} = 2400$
 $1\text{ unit} = 2400 \div 2000 = 1.2$
Ronnie = $320 + 1280 = 1600$
Ronnie = $1600 \times 1.2 = 1920$
Difference = $2400 - 1920 = \underline{480}$

6) Assume school bought 256 chairs
 $256\text{ desks} = 256 \times 28 = 7168$
Difference = $12006 - 7168 = 4838$
Difference = $69 - 28 = 41$
No. of desks = $5658 \div 41 = \underline{118}$



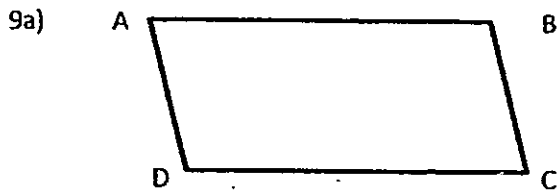
$$7) \text{ Brother} = \frac{1}{8} \times \frac{4}{5} = \frac{1}{10}$$

$$\text{Remainder} = 1 - \frac{1}{5} - \frac{1}{10} = \frac{7}{10}$$

$$\frac{9}{10} - \frac{7}{10} = \frac{2}{10}$$

$$2 \text{ units} = 96$$

$$\text{Sticks Faris have at first} = 10 \text{ units} = 5 \times 96 = \underline{480}$$



9b) 10.9cm

11a) $\angle QPR = (180^\circ - 166^\circ) \div 2 = 32^\circ$
 $\angle PNO = 180^\circ - 135^\circ = 45^\circ$
 $\angle NOP = 180^\circ - 45^\circ - 32^\circ = \underline{103^\circ}$

11b) $\angle FGB = (180^\circ - 66^\circ) \div 2 = 57^\circ$
 $\angle GFB = 180^\circ - 90^\circ - 57^\circ = 33^\circ$
 $\angle AFB = 180^\circ - (37^\circ \times 2) - (33^\circ \times 2) = \underline{40^\circ}$

13) Total speed = $684 \div 4 \frac{3}{4} = 144 \text{ km/h}$

$$\text{Jack's speed} = \frac{144 - 18}{2} = 63 \text{ km/h}$$

$$\text{Roy's speed} = 63 + 18 = \underline{81 \text{ km/h}}$$

$$8) \frac{1}{3} - \frac{1}{4} = \frac{1}{12}$$

$$1 \text{ unit} = 49$$

$$\frac{1}{4} \times 3 = \frac{3}{12}$$

$$\text{Sweets alicc ate} = 49 \times 3 = \underline{147}$$

10) Total difference = $65 \times 4 = 260$

$$20 \text{ units} = 1040 - 260 = 780$$

$$1 \text{ unit} = 780 \div 20 = 39$$

$$\text{Red beads removed} = (39 \times 14) + (65 \times 3) = \underline{741}$$

12a) Area of CDEF = $(27 \div 3) \times 4 = 36$

$$\text{Length of CD} = 36 \div 9 = \underline{4}$$

12b) Area of GEA = $\frac{1}{4} \times 36 = 9$

$$\text{Area of CBA} = \frac{1}{2} \times 11.5 \times 9 = \underline{51.75}$$

$$\text{Area of CFD} = 27 + 9 = 36$$

$$\text{Area of BCF} = 51.75 - 36 = \underline{15.75 \text{ cm}^2}$$

