

SINGAPORE CHINESE GIRLS' SCHOOL

FIRST SEMESTRAL ASSESSMENT 2015

PRIMARY 5

MATHEMATICS
PAPER 1

BOOKLET A

Name : _____ ()

Class : Primary 5

		Marks attained	Max Mark	Parent's Signature
Paper 1	Booklet A		20	
	Booklet B		20	
Paper 2			60	
Total Marks			100	

15 Questions
20 Marks

Total Time for Booklets A and B: 50 min

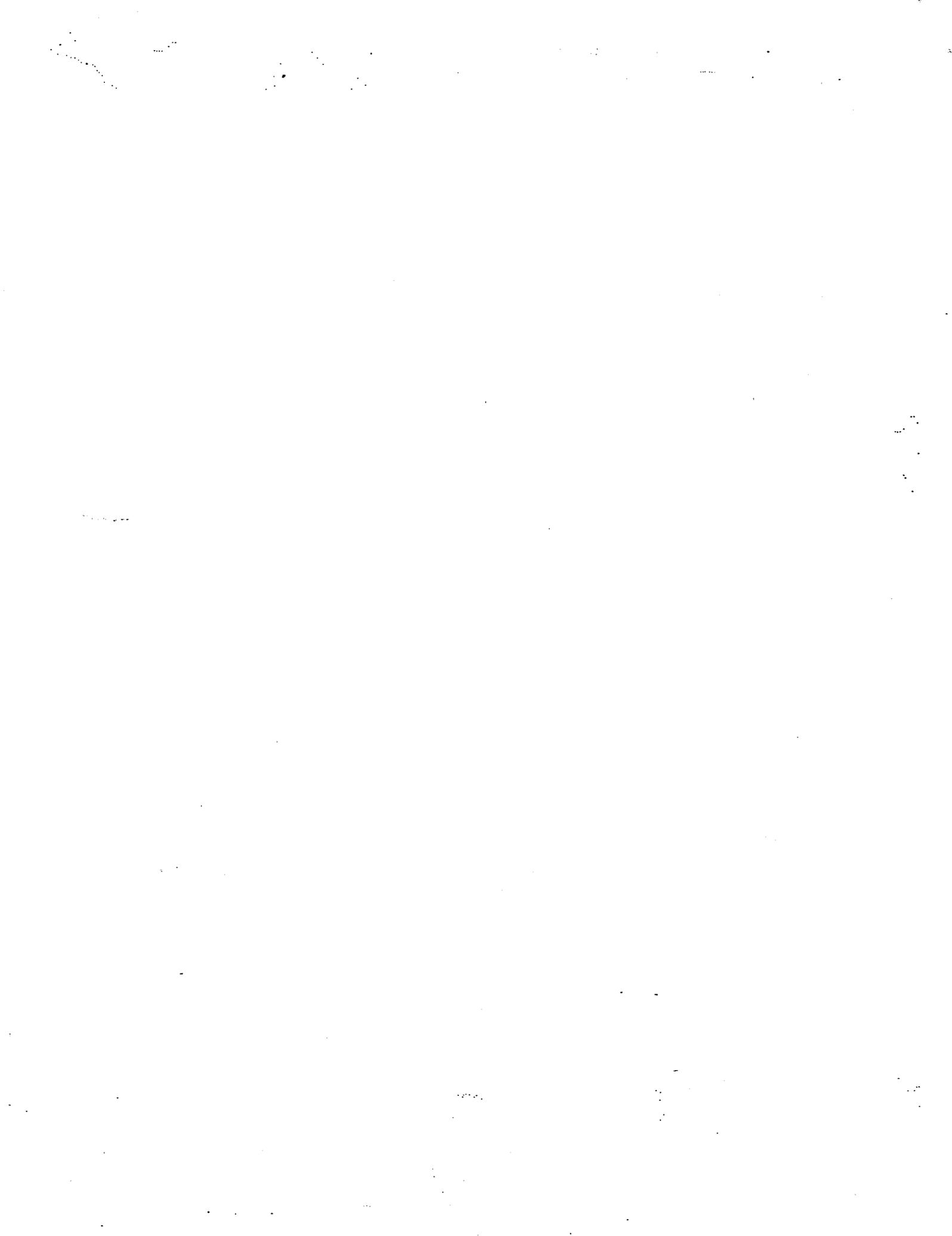
INSTRUCTIONS TO CANDIDATES

Do not open this booklet until you are told to do so.

Follow all instructions carefully.

Answer all questions.

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 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. Which of the following numbers has the digit '3' in the hundredths place?

- (1) 203.203
- (2) 234.234
- (3) 302.302
- (4) 320.023

2. How many $\frac{1}{6}$ s are there in $1\frac{2}{3}$?

- (1) 5
- (2) 9
- (3) 10
- (4) 4

3. Which of the following is 3000 when rounded off to the nearest hundred?

- (1) 2290.9
- (2) 2990.9
- (3) 3090.9
- (4) 3990.9

4. $\frac{13}{20}$ has the same value as _____.

- (1) 0.13
- (2) 0.65
- (3) 1.3
- (4) 6.5

5. $\frac{4}{5} \div 12 =$

(1) $\frac{4}{5} + \frac{1}{12}$

(2) $\frac{4}{5} \times \frac{1}{12}$

(3) $12 + \frac{5}{4}$

(4) $12 \times \frac{5}{4}$

6. Which of the following is the same as 4kg 90g?

(1) 490g

(2) 4009g

(3) 4090g

(4) 4900g

7. Find the value of $10 - 4 \times 6 + (4 - 1)$.

(1) 8

(2) 2

(3) 3

(4) 12

8. A number when divided by 8 has a quotient of 4 and a remainder of 3.

What is the number?

(1) 20

(2) 28

(3) 29

(4) 35

9. Vivien had 2kg of flour. She used $\frac{1}{4}$ of it to bake a cake and $\frac{1}{4}$ kg to make some cookies. How much flour have she used altogether?

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

(2) $\frac{3}{4}$ kg

(3) 1kg

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

10. The number of stamps Jamie had was five times the number of stamps Katherine had. Jamie gave Katherine some stamps such that they have equal number of stamps. What is the ratio of the number of stamps Jamie gave to the total number of stamps?

(1) 1 : 3

(2) 2 : 5

(3) 3 : 6

(4) 4 : 6

11. There are 9 coins in Dai Ling's piggy bank. There are only 20-cent coins and 50-cent coins in the piggy bank. Which of the following could be the total amount of money?

(1) \$1.80

(2) \$2.40

(3) \$2.80

(4) \$3.20

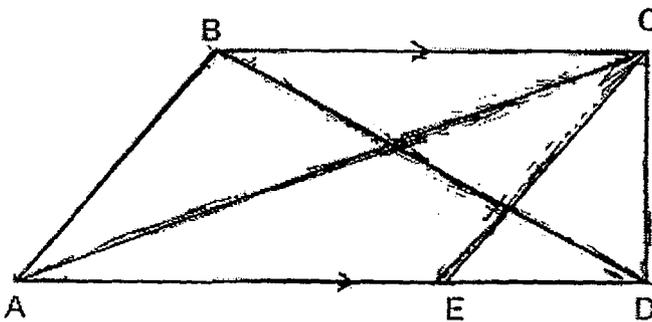
12. Study the following pattern.

S C G S P S C G S P S C G S P

Which is the 57th alphabet in the sequence?

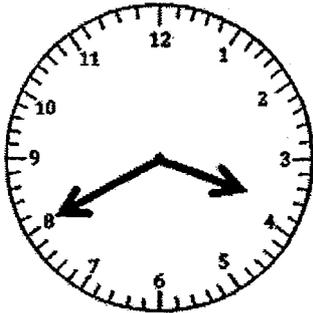
- (1) C
- (2) G
- (3) P
- (4) S

13. The figure below, not drawn to scale, consists of a pair of parallel lines, BC and AD. Which triangle below has the same area as Triangle ACE?

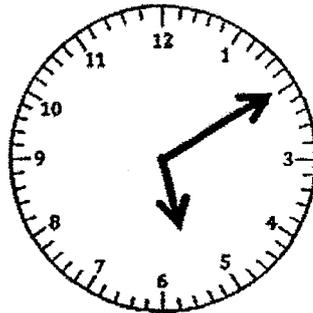


- (1) ABC
- (2) ACD
- (3) BCD
- (4) CDE

14. The clocks below show the usual start and end time of James' tuition class. On Monday, James arrived 15 minutes late but left on time. What was the duration of that lesson?



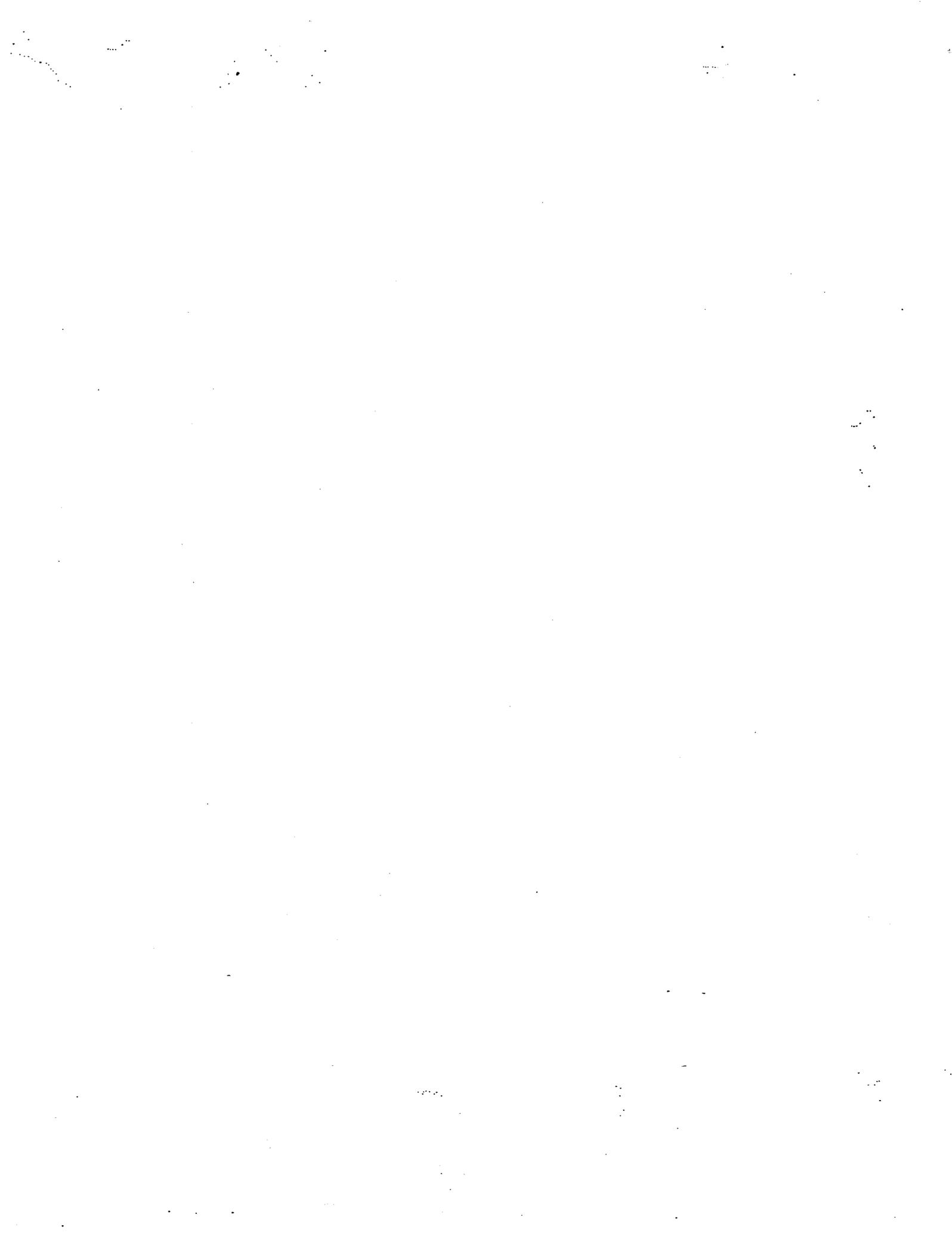
Start



End

- (1) 15 min
 - (2) 45 min
 - (3) 1 hr 15 min
 - (4) 1 hr 45 min
15. The ratio of the number of Alice's sweets to the number of Betty's sweets was 3:2. After Betty bought another 5 sweets, she has 2 more sweets than Alice. How many sweets did Alice have?
- (1) 5
 - (2) 8
 - (3) 3
 - (4) 9

-End of booklet A-



SINGAPORE CHINESE GIRLS' SCHOOL

FIRST SEMESTRAL ASSESSMENT 2015

PRIMARY 5

**MATHEMATICS
PAPER 1**

BOOKLET B

Name : _____ ()

Class : Primary 5

Paper 1	Mark attained	Max Mark
Booklet B		20

15 Questions

20 Marks

Total Time for Booklets A and B: 50 min

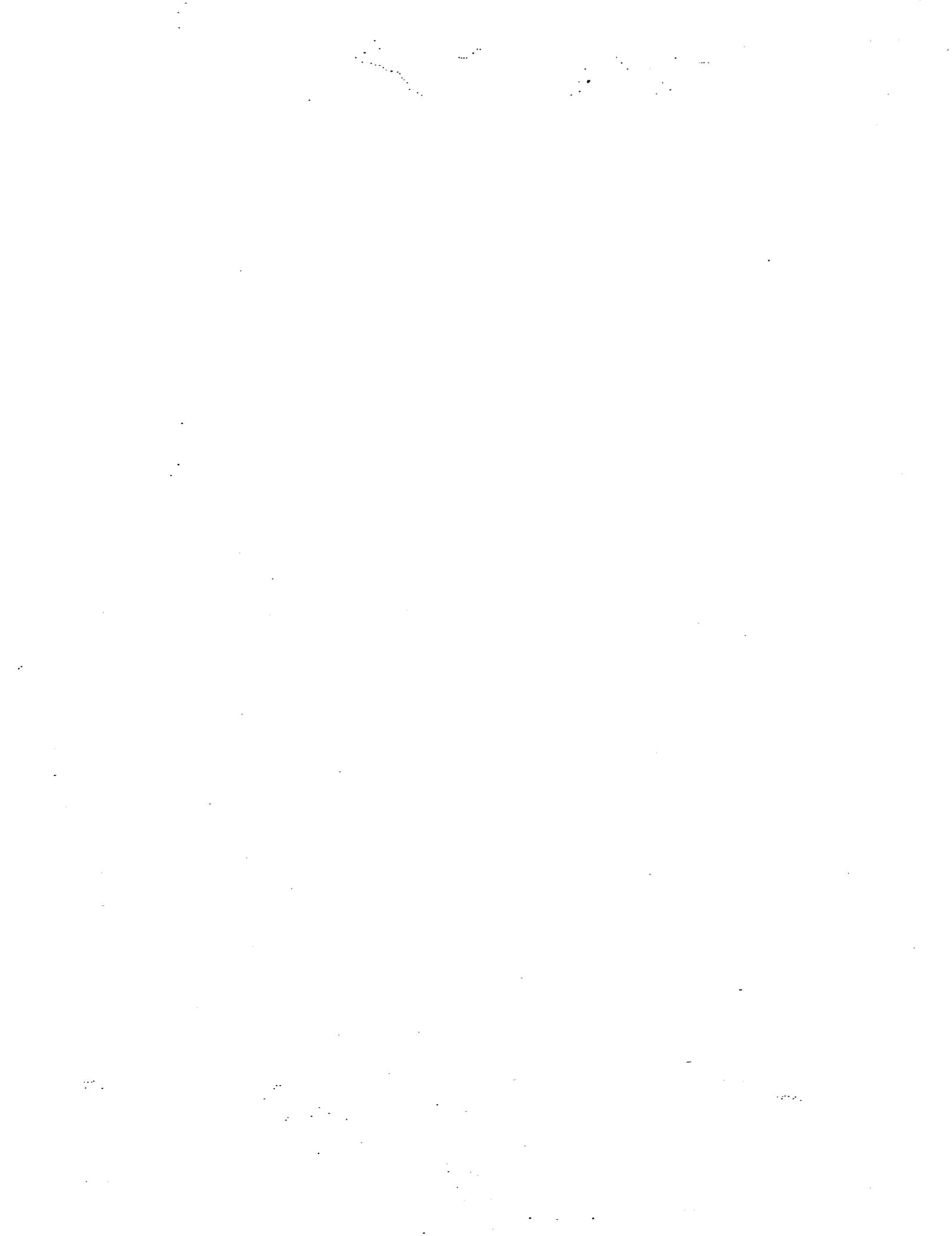
INSTRUCTIONS TO CANDIDATES

Do not open this booklet until you are told to do so.

Follow all instructions carefully.

Answer all questions.

You are not allowed to use a calculator



Booklet B

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this column

Name: _____ () Class: P5

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. (10marks)

16. There are $\frac{2}{3}$ as many boys as girls. What fraction of the total number of ~~girls~~^{pupils} are girls?

Ans: _____

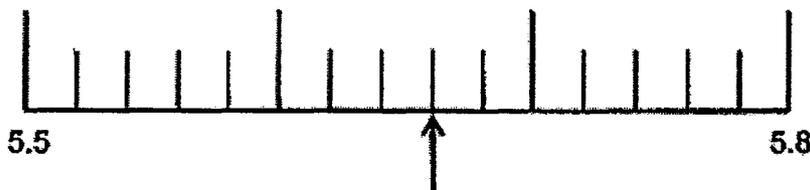
17. What is the ratio of 8 km to 500 m?

Ans: _____

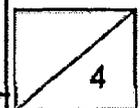
18. Express $\frac{3}{7}$ as a decimal corrected to 2 decimal places.

Ans: _____

19. What is reading indicated by the arrow on the number line?
Give your answer in decimals.



Ans: _____



20. Which of the following fraction is the greatest?

$$\frac{1}{3}, \frac{2}{5}, \frac{5}{9}, \frac{6}{13}$$

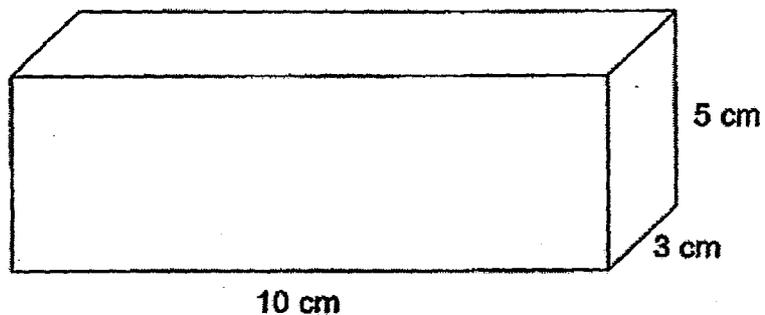
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Ans: _____

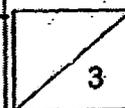
21. Find the value of 0.26×4 .

Ans: _____

22. Find the volume of the cuboid below.

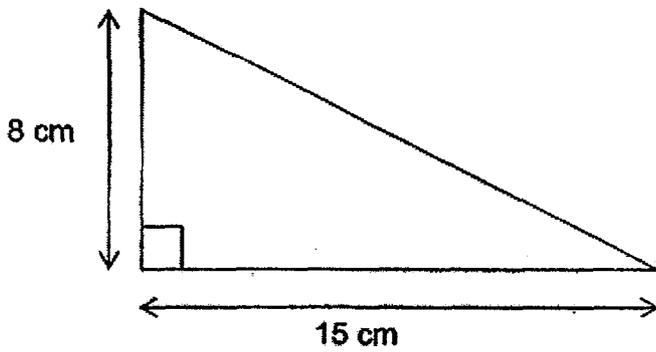


Ans: _____ cm^3



23. Find the area of the triangle below.

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this column



Ans: _____ cm²

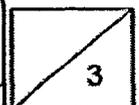
24. Find the value of $1\frac{2}{3} + \frac{3}{5}$.

Ans: _____

25. What is the missing number in the box below?

$$32 \times 8 = \square \times 8 + 5 \times 8$$

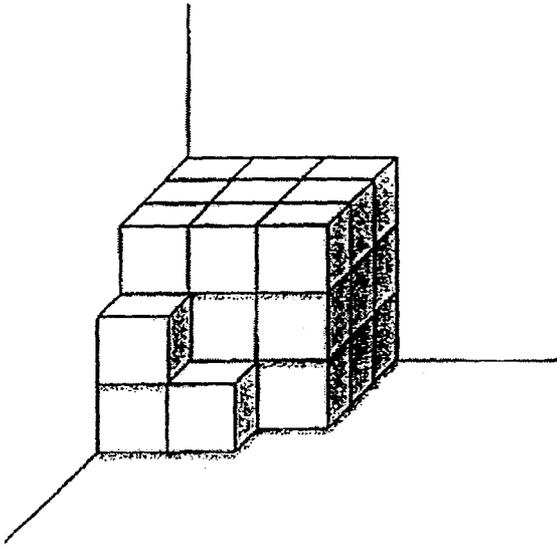
Ans: _____



Questions 26 to 30 carry 2 marks each. Show your working clearly in the space 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)

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this column

26. The figure below is made up of identical 2-cm cubes. What is the volume of the figure below?



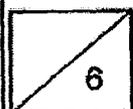
Ans: _____ cm³

27. The sum of two numbers is 102. The difference between the two numbers is 32. Find the larger number.

Ans: _____

28. Abigail is thrice as old as her daughter and 3 years younger than her husband. How old is her daughter in 3 years' time if her husband is 30 years old now?

Ans: _____



SINGAPORE CHINESE GIRLS' SCHOOL

FIRST SEMESTRAL ASSESSMENT 2015

PRIMARY 5

MATHEMATICS

PAPER 2

Name : _____ ()

Class : Primary 5

	Mark	Max Mark
Paper 2		60

Parent's Signature

18 Questions
60 Marks

Total Time For Paper 2: 1 h 40 min

INSTRUCTIONS TO CANDIDATES

Do not open this booklet until you are told to do so.
Follow all instructions carefully.
Answer all questions.

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

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1. Mrs Chew made 576 cookies. She packs them into packets of 30 and gives the rest away to the neighbour. How many cookies does she give to the neighbour?

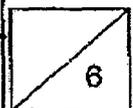
Ans: _____

2. Jamie and Charlene had \$32.80 altogether. Jamie has 3 times as much money as Charlene. How much money did Jamie have?

Ans: \$ _____

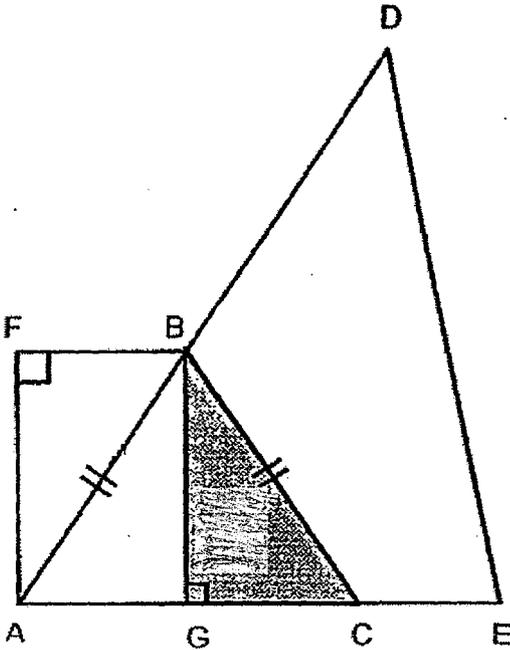
3. An orange and a pear cost \$1.15. An orange and an apple cost \$1.35. Peter bought 4 oranges, 2 apples and 1 pear for \$4.30. How much does a pear cost?

Ans: \$ _____



4. The figure below, not drawn to scale, is made up of rectangle AFBG, triangle ABC and triangle ADE. The lines AG and GC have the same length. Given that the ratio of the area of triangle ABC to the area of triangle ADE is 3 : 7, what fraction of the figure is shaded?

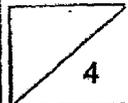
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Ans: _____

5. A shelf can hold 32 magazines or 44 encyclopedias. There are 10 magazines and 22 encyclopedias placed on the shelf. How many more magazines can be placed on the shelf for it to be fully occupied?

Ans: _____



For questions 6 to 18, show your working clearly in the space below each question and write your answers in the spaces provided. The number of marks awarded is shown in brackets [] at the end of each question or part-question.

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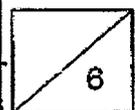
(50 marks)

6. Wendy is twice as old as Vivien^{now}. Vivien was $\frac{1}{4}$ as old as Wendy 10 years ago. How old is Wendy in 5 years' time?

Ans: _____ [3]

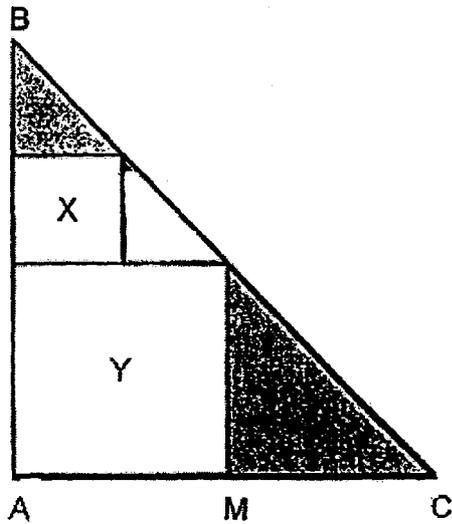
7. There are 50 3-legged chairs and 4-legged chairs in the hall. There are 178 legs in total. How many 3 legged-chairs are there?

Ans: _____ [3]



8. In the figure below, not drawn to scale, length AB is equal to length AC. M is the midpoint of AC. The length of Square Y is twice the length of Square X. Given that the area of Square X is 64 cm^2 , find the area of the shaded figure.

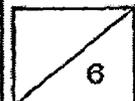
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Ans: _____ [3]

9. A 9-cm metal cube is melted and formed into 27 cubes. What is the length of each side of the new cubes?

Ans: _____ [3]



10. Study the pattern below.

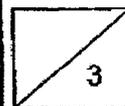
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Number of dots				
Figure Number				

- a) How many dots are there in Figure 10? (1 mark)
b) Which figure is made up of 58 dots? (2 marks)

Ans: a) _____ [1]

b) _____ [2]



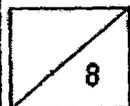
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11. Miss Phua saved some 20-cent coins and 50-cent coins in the ratio of 3 : 4 in a box. She then decided to replace $\frac{1}{3}$ of the 20-cent coins with the same number of 50-cent coins. The value of the amount she saved increased by \$4.50. How much money was there in the box at first?

Ans: _____ [4]

12. Wendy had $\frac{1}{2}$ as much money as Xue Ting. After Wendy spent \$30 while Xue Ting received \$30, Xue Ting had seven times as much as Wendy. How much money did Wendy have at first?

Ans: _____ [4]



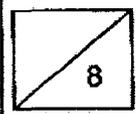
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13. Jonathan and Kenneth shared a sum of money in the ratio of 3 : 4. After Jonathan spent $\frac{1}{6}$ of his money and Kenneth spent \$15 of his money, both Jonathan and Kenneth had the same amount of money left. How much money did they have at first?

Ans: _____ [4]

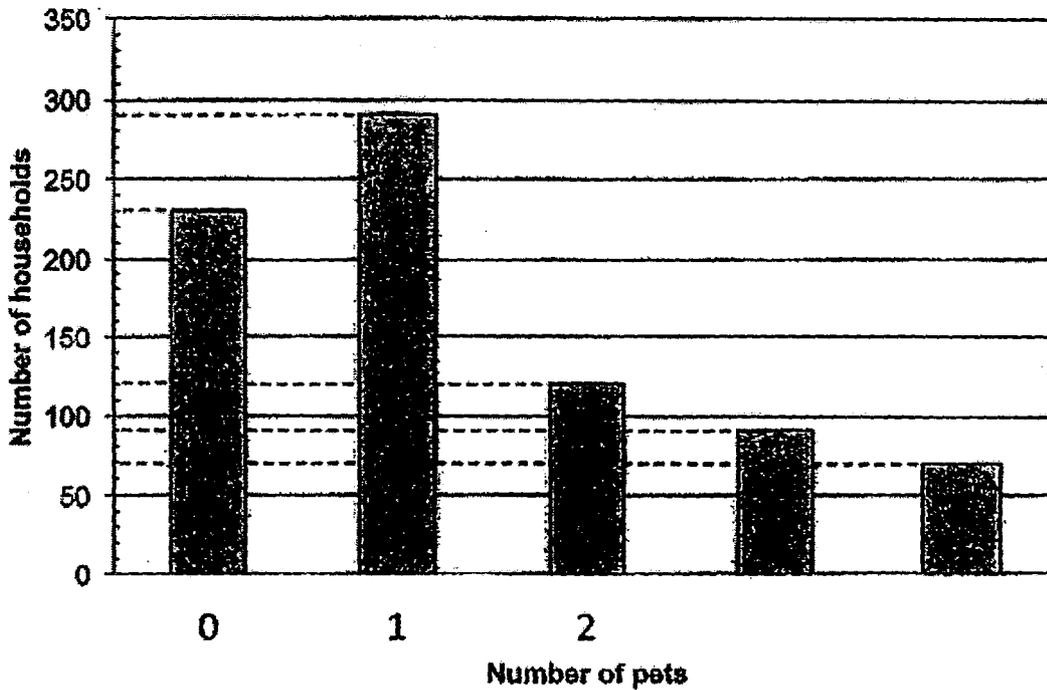
14. Peter, James and Samuel shared some stamps. The number of stamps Peter had was $\frac{1}{3}$ of the number of stamps Samuel had. Samuel had twice as many stamps as James. Samuel had 30 more stamps than James. How many stamps did they have altogether?

Ans: _____ [4]



15. The graph below shows the number of pets each household has among 800 households.

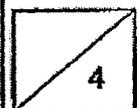
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- a) Express the number of households with 2 pets as a fraction of the total number of households.
- b) Find the total number of pets among all the households.

Ans: a) _____ [2]

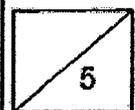
b) _____ [2]



16. At the supermarket, Elycia spent $\frac{1}{5}$ and an additional \$2 on potato chips. She used $\frac{2}{3}$ of the remaining money to buy some drinks and received a change of \$8. Given that she had \$18 left, how much did she have at first?

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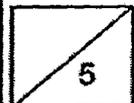
Ans: _____ [5]



17. There is an equal number of girls in Primary 5A and in Primary 5B. $\frac{3}{4}$ of the pupils in 5A are girls while $\frac{1}{5}$ of the pupils in 5B are boys. Given that there is a total of 14 boys in both classes, how many more girls than boys are there altogether?

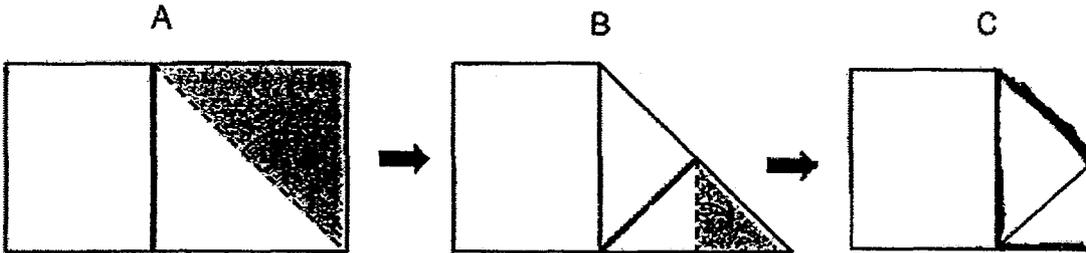
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Ans: _____ [5]



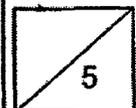
18. The figure below shows a piece of paper folded twice along the dotted lines shown below. Given that the breadth of the paper is $\frac{4}{7}$ of the length of the paper and the perimeter of the paper is 110cm, find the ratio of the area of the unfolded paper in the beginning to the area of the folded paper in the end. Give your answer in the simplest form.

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Ans: _____ [5]

-End of paper-
Check your work thoroughly.





Answer Key

EXAM PAPER 2015

SCHOOL : SCGS

SUBJECT : P5 MATHEMATICS

TERM : SA1

ORDER CALL : MR GAN @ 92998971 92475053 86065443

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

16) $\frac{3}{5}$

17) $16 : 1$

18) 0.43

19) 5.66

20) $\frac{5}{9}$

21) 1.04

22) 150 cm^3

23) 60 cm^2

24) $2\frac{4}{15}$

25) 27

26) volume of 1 cube $\rightarrow 2 \times 2 \times 2 = 8$

28) $30 - 3 = 27$

$9 + 10 + 11 = 30$

$27 \div 3 = 9$

$30 \times 8 = 240 \text{ cm}^3$

$9 + 3 = 12$

27) $102 - 32 = 70$

29) $\frac{1}{4}$ ---- triangles

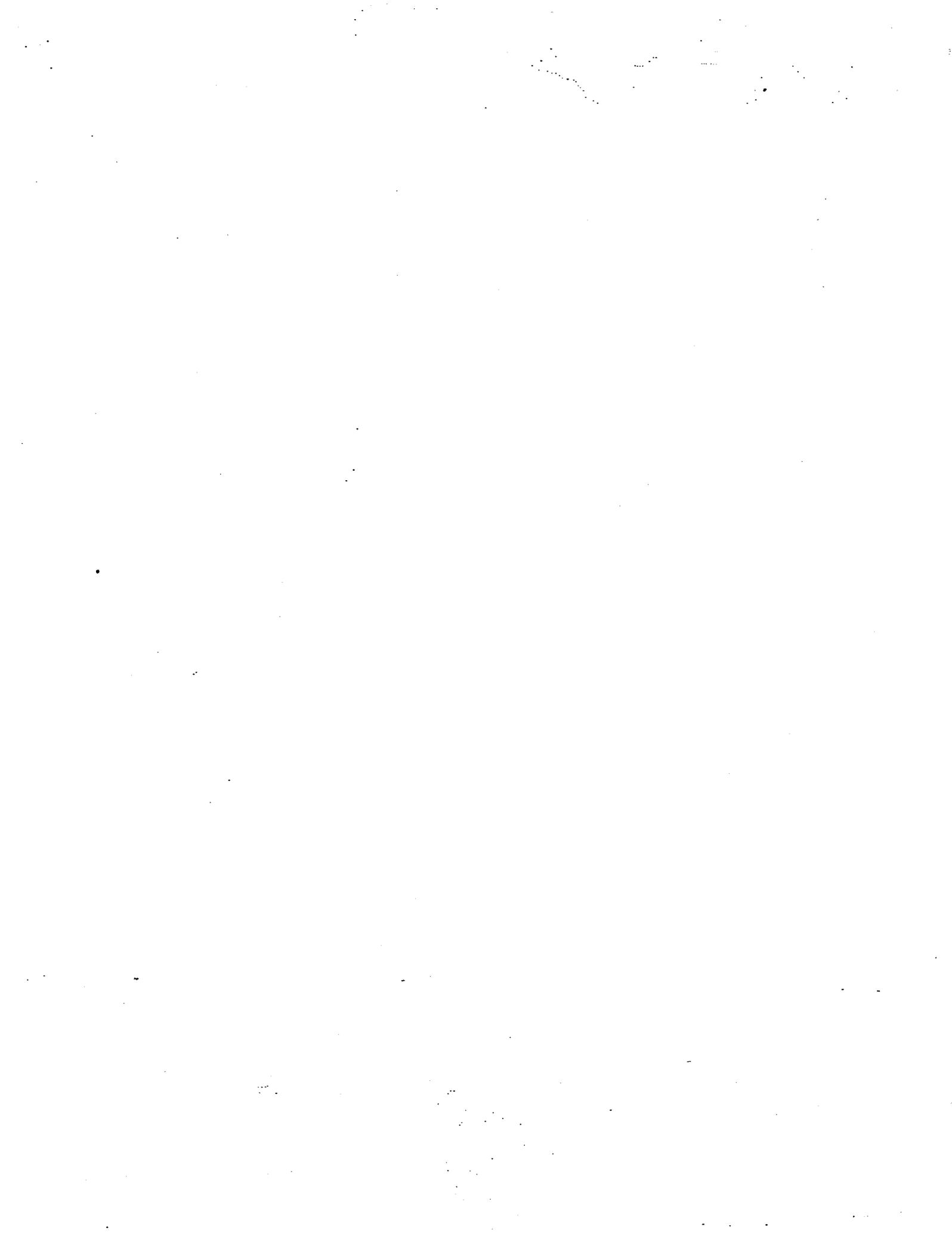
$70 \div 2 = 35$

$\frac{3}{4}$ ---- $4 \times 3 = 12$ triangles

$35 + 32 = 67$

$12 - 7 = 5$

30) $\$96$



Questions 1 to 6 carry 2 marks each. Show your working clearly in the space below 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. Mrs Chew made 576 cookies. She packs them into packets of 30 and gives the rest away to the neighbour. How many cookies does she give to the neighbour?

$$576 \div 30 = 19 \frac{1}{2}$$

$$30 \times 19 = 570$$

$$\text{Remainder} = 576 - 570$$

$$= 6$$

Ans: 6

2. Jamie and Cherie had \$32.80 altogether. Jamie has 3 times as much money as Cherie. How much money did Jamie have?



$$4u = \$32.80$$

$$1u = \$8.20$$

$$\text{Jamie } 3u = \$8.20 \times 3$$

$$= \$24.60$$

Ans: \$24.60

3. An orange and a pear cost \$1.15. An orange and an apple cost \$1.35. Peter bought 4 oranges, 2 apples and 1 pear for \$4.30. How much does a pear cost?

$$1 \text{ orange} + 1 \text{ pear} = \$1.15$$

$$1 \text{ orange} + 1 \text{ apple} = \$1.35$$

$$2 \text{ oranges} + 2 \text{ apples} = \$1.35 \times 2 = \$2.70$$

$$3 \text{ oranges} + 2 \text{ apples} + 1 \text{ pear} = \$2.70 + \$1.15$$

$$= \$3.85$$

$$4 \text{ oranges} + 2 \text{ apples} + 1 \text{ pear} = \$4.30$$

$$\text{Ans: } \$0.45$$

$$1 \text{ orange} = \$4.30 - \$3.85 = \$0.45$$

$$1 \text{ pear} = \$1.15 - \$0.45$$

$$= \$0.70$$

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6

4. The figure below, not drawn to scale, is made up of rectangle AFBG, triangle ABC and triangle ADE. The lines AG and GC have the same length. Given that the ratio of the area of triangle ABC to the area of triangle ADE is 3 : 7, what fraction of the figure is shaded?

$$ABC : ADE$$

$$\times 3 : 7$$

$$= 6 : 14$$

$$\triangle ABC = 6 \text{ units}^2$$

$$\triangle GBC = 3 \text{ units}^2$$

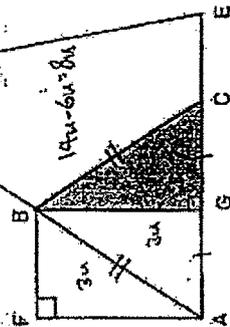
$$\frac{\text{shaded}}{\text{Total}} = \frac{3}{17}$$

$$\text{Total} = 3 + 3u + 3u + 8u = 17u$$

$$\frac{3}{17}$$

Ans:

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 $3u \div 2 = 1 \frac{1}{2}u$
 Change to 6u
 so that I won't have a decimal fraction to use as well.



5. A shelf can hold 32 magazines or 44 encyclopedias. There are 19 magazines and 22 encyclopedias placed on the shelf. How many more magazines can be placed on the shelf for it to be fully occupied?

$$32 \text{ magazines} - 19 = 13$$

$$44 \text{ encyclopedias} - 22 = 22$$

$$13 + 22 = 35$$

$$10 + 16 = 26 \text{ magazines}$$

$$32 - 26 = 6$$

Ans: 6

2

4

For questions 6 to 18, show your working clearly in the space below each question and write your answers in the spaces provided. The number of marks awarded is shown in brackets () at the end of each question or part-question.

(50 marks)

6. Wendy is twice as old as Vivian. Vivian was $\frac{1}{4}$ as old as Wendy 10 years ago. How old is Wendy in 8 years' time?

Condition Difference

now
 $\frac{W}{V} = \frac{2W}{V}$
 $W = 2V$
 $4 + 1 = 3$
 $6 + 3 = 9$

10 years ago
 $W - 10 = 2(V - 10)$
 $W - 10 = 2V - 20$
 $W = 2V - 10$
 $4 + 1 = 3$

Wendy now — $6 \times 5 = 30$
 Wendy 5 years time — $30 + 5$ Ans 35 years old (3)

7. There are 50 3-legged chairs and 4-legged stools in the hall. There are 178 legs in total. How many 3-legged chairs are there?

Assume all are 4-legged chairs

Total — $50 \times 4 = 200$ legs

Extra — $200 - 178 = 22$

Difference — $4 - 3 = 1$

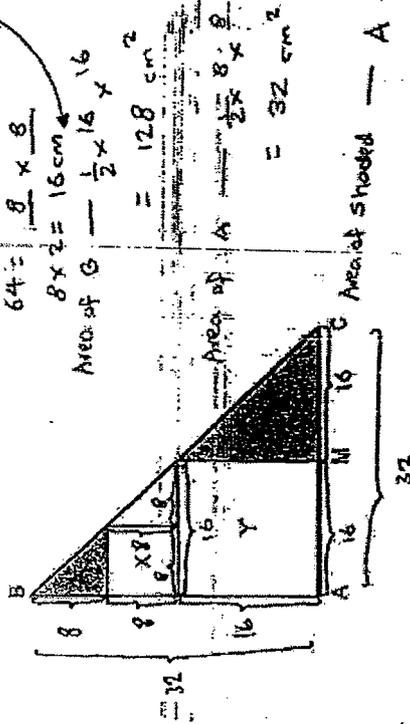
No. of 3-legged chairs — $22 \div 1 = 22$

Guess & Check	No. of 3-legged chairs	No. of 4-legged chairs	Total no. of legs	Check
Start from the middle	25	25	$(25 \times 3) + (25 \times 4) = 175$	X
	25	27	$(25 \times 3) + (27 \times 4) = 177$	X
	22	28	$(22 \times 3) + (28 \times 4) = 178$	✓
				Ans. 22

right of how many sentences?

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8. In the figure below, not drawn to scale, length AB is equal to length AC. M is the midpoint of AC. The length of Square Y is twice the length of Square X. Given that the area of Square X is 64 cm², find the area of the shaded figure.



$64 = 8 \times 8$
 $8 \times 2 = 16 \text{ cm}$
 Area of X — $\frac{1}{2} \times 16 \times 16$
 $= 128 \text{ cm}^2$
 Area of Y — $2 \times 8 \times 8$
 $= 32 \text{ cm}^2$

Area of shaded — $A + B$
 $= 128 + 32$
 $= 160 \text{ cm}^2$

Ans: 160 cm^2 (3)

9. A 9-cm metal cube is melted and formed into 27 cubes. What is the length of each side of the new cubes?

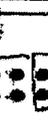
Vol. of 9-cm cube — $9 \times 9 \times 9$
 $= 729 \text{ cm}^3$

Vol. of each new cube — $729 \div 27$
 $= 27$

$\therefore \text{side} = \sqrt[3]{27} = 3$

Ans: 3 cm (3)

10. Study the pattern below.

Number of dots				
Figure Number	1	2	3	4

- a) How many dots are there in Figure 10? (1 mark)
 b) Which figure is made up of 88 dots? (2 marks)

a) Pattern: $2 + (Fig\ number \times 2)$
 $Fig\ 10 = 2 + (10 \times 2)$
 $= 2 + 20$
 $= 22 //$

b) $2 + (Fig\ no. \times 2) = 88$
 $56 \div 2 = 28 //$

Ans: a) 22 [1]
 b) Fig 28 [2]



Does not
use column

Does not
use column

11. Miss Phua saved some 20-cent coins and 50-cent coins in the ratio of 3:4 in a box. She then decided to replace $\frac{1}{3}$ of the 20-cent coins with the same number of 50-cent coins. The value of the amount she saved increased by \$4.50. How much money was there in the box at first?

In 1 set, 1 20-cent coin is replaced with 1 50-cent coin.
 Difference $= 50 - 20 = 30$
 Total difference $= 54.50$
 No. of sets $= 54.50 \div 30 = 1.8166$
 $= 1.8166 \times 15 = 27.25$ coins replaced.

20 cents: 50 cents
 3 : 4
 $1u = 15$ (because $\frac{1}{3}$ of the 20-cent coins were replaced.)
 No. of 20-cent coins $= 15 \times 3 = 45$
 Value of 20-cent coins $= 45 \times 0.20 = \$9$
 No. of 50-cent coins $= 15 \times 4 = 60$ Ans: \$39 [4]
 Value of 50-cent coins $= 60 \times 0.50 = \$30$
 Total value $= 9 + 30 = \$39 //$

12. Wendy had $\frac{1}{2}$ as much money as Xue Ting. After Wendy spent \$30 while Xue Ting received \$30, Xue Ting had seven times as much as Wendy. How much money did Wendy have at first?

Before
 W : X Total
 1 : 2 30
 = 8 : 16 24
 After
 W : X Total
 1 : 7 80
 = 8 : 24 24
 $8u - 3u = 5u$
 $24u - 16u = 8u$
 $5u = 30$
 $1u = 30 \div 5 = \$6$
 Wendy at first, $8u = 8 \times 6 = \$48$
 = \$48

Total: did not change

Ans: \$48 [4]



13. Jonathan and Kenneth shared a sum of money in the ratio of 3 : 4. After Jonathan spent $\frac{1}{6}$ of his money and Kenneth spent \$15 of his money, both Jonathan and Kenneth had the same amount of money left. How much money did they have at first?

Equal concept

$J : K$
 $3 : 4$
 $12 : 16$
 $16 : 8$
 After $16 - 15 = 1$
 $8 : 5$
 we can infer that Kenneth also has 5 units left.

$$3u = \$15$$

$$1u = \$5$$

$$= \$5$$

$$\text{At first, } 14 \times 5 = \$70$$

Ans: \$70 [4]

14. Peter, James and Samuel shared some stamps. The number of stamps Peter had was $\frac{1}{3}$ of the number of stamps Samuel had. Samuel had twice as many stamps as James. Samuel had 60 more stamps than James. How many stamps did they have altogether?

Repeated identity

$$P : S : J$$

$$1 : 3 : 2$$

$$6 \times 3 = 30$$

$$30 = 30$$

$$10 = 30 \div 3$$

$$= 10$$

$$\text{Total } 114 = 11 \times 10$$

$$= 110$$

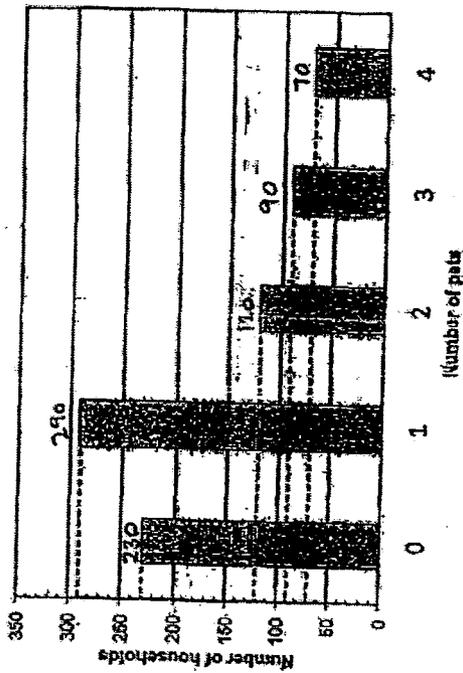
Ans: 110 [4]

7



8

15. The graph below shows the number of pets each household has among 800 households.



- a) Express the number of households with 2 pets as a fraction of the total number of households.

- b) Find the total number of pets among all the households.

$$\text{Total} = 230 + 290 + 110 + 90 + 70 = 800$$

$$\frac{110}{800} = \frac{11}{80}$$

$$b) (290 \times 1) + (110 \times 2) + (90 \times 3) + (70 \times 4)$$

$$= 290 + 220 + 270 + 280$$

$$= 1060$$

Ans: a) $\frac{11}{80}$ [2]

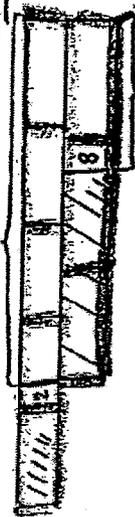
b) 1060 [2]



16. At the supermarket, Elycia spent $\frac{1}{5}$ and an additional \$2 on potato chips. She

used $\frac{2}{3}$ of the remaining money to buy some drinks and received a change of \$8. Given that she had \$18 left, how much did she have at first? Remainder concept

30



$$1 \text{ part} = \$18 - \$8 = \$10$$

$$3 \text{ parts} = \$10 \times 3 = \$30$$

$$4 \text{ units} = \$30 + 2 = \$32$$

$$1 \text{ unit} = \$32 \div 4 = \$8$$

$$\text{At first, } \$8 \times 5 = \$40$$

ANS: \$40 [15]



17. There is an equal number of girls in Primary 5A and in Primary 5B. $\frac{3}{4}$ of the

pupils in 5A are girls while $\frac{1}{5}$ of the pupils in 5B are boys. Given that there is a total of 14 boys in both classes, how many more girls than boys are there altogether?

Equal fraction/ ratio

Ratio: 5A G:B = 3:4
5B G:B = 4:3
Since number of girls are equal, we make their ratio the same.
5A G:B = 12:16
5B G:B = 12:9
Total = 12:25

$$\text{Let } 3u = 7u$$

$$7u = 14 \div 7 = 2$$

$$\text{Girls} = 12u + 16 = 24u$$

$$\text{Difference} = 24u - 7u = 17u$$

$$17u = 17 \times 2 = 34$$

Function (Equal fraction concept)

$$\frac{5A}{3A} \text{ Girls} = \frac{12}{16} = \frac{3}{4}$$

$$\frac{5B}{4B} \text{ Boys} = \frac{4}{3} = \frac{16}{12}$$

$$\frac{3}{4}A = \frac{4}{3}B$$

$$\frac{12}{16}A = \frac{16}{12}B$$

$$3A + 3u = 7u$$

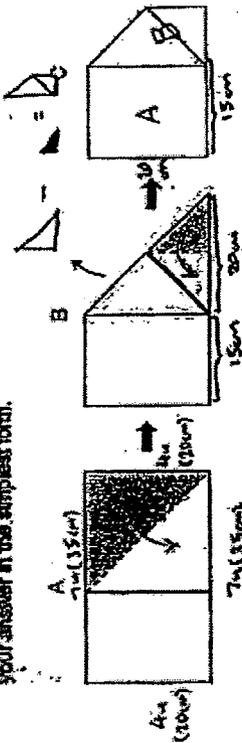
$$7u = 14$$

$$u = 14 \div 7 = 2$$

$$\text{Difference, } 17u = 17 \times 2 = 34$$

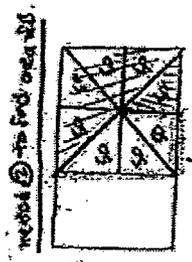
ANS: 34 [15]

18. The figures below shows a piece of paper folded twice along the dotted lines shown below. Given that the breadth of the paper is $\frac{4}{7}$ of the length of the paper and the perimeter of the paper is 110cm, find the ratio of the area of the unfolded paper to the area of the folded paper in the end. Give your answer in the simplest form.



$4u + 7u + 4u + 7u = 22u$
 $22u = 110$
 $u = 5$
 Length = $7 \times 5 = 35 \text{ cm}$
 Breadth = $5 \times 4 = 20 \text{ cm}$
 $35 \text{ cm} - 20 \text{ cm} = 15 \text{ cm}$

Area of A = $15 \times 20 = 300 \text{ cm}^2$
 Area of B = $35 \times 20 = 700 \text{ cm}^2$ (small shaded triangle)
 Area of small shaded triangle = $\frac{1}{2} \times 15 \times 20 = 150 \text{ cm}^2$
 Area of folded = A + B = $300 + 150 = 450 \text{ cm}^2$
 Area of unfolded = $35 \text{ cm} \times 20 \text{ cm} = 700 \text{ cm}^2$
 Unfolded: 700
 Folded: 450
 Ratio = $14 : 9$



Area of square = $20 \times 20 = 400 \text{ cm}^2$
 Area of 8 small squares = $8 \times 50 \text{ cm}^2 = 400 \text{ cm}^2$
 Area of 9 small squares = $9 \times 50 \text{ cm}^2 = 450 \text{ cm}^2$



End of paper
 Check your work thoroughly!