

**SINGAPORE CHINESE GIRLS' SCHOOL**

**FIRST SEMESTRAL ASSESSMENT 2015**

**PRIMARY 5**

**MATHEMATICS  
PAPER 1**

**BOOKLET A**

**Name :** \_\_\_\_\_ (      )

**Class :** Primary 5

		Marks attained	Max Mark
<b>Paper 1</b>	<b>Booklet A</b>		<b>20</b>
	<b>Booklet B</b>		<b>20</b>
<b>Paper 2</b>			<b>60</b>
<b>Total Marks</b>			<b>100</b>

<b>Parent's Signature</b>

**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)

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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)  $\frac{4}{5} \div \frac{1}{12}$

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

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

(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

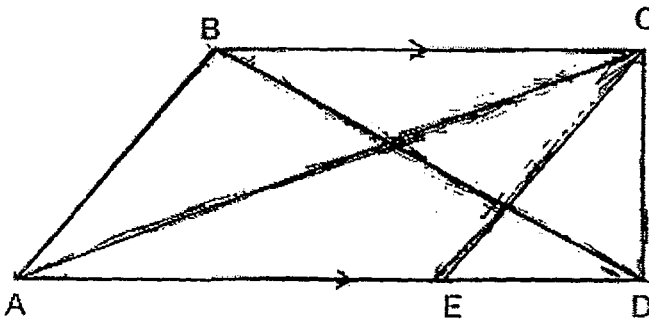
12. Study the following pattern.

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

Which is the 57<sup>th</sup> alphabet in the sequence?

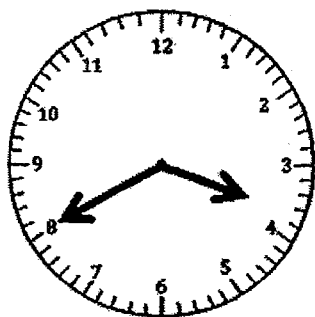
- (1) C
- (2) G
- (3) P
- (4) S

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?

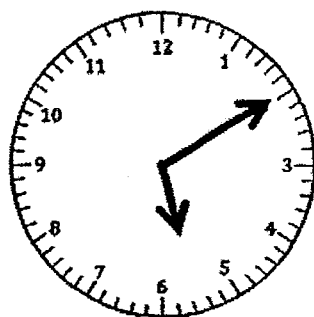


- (1) ABC
- (2) ACD
- (3) BCD
- (4) CDE

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

<b>Paper 1</b>	<b>Mark attained</b>	<b>Max Mark</b>
<b>Booklet B</b>		<b>20</b>

**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**Do not write in  
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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~~<sup>pupils</sup> are girls?

Ans: \_\_\_\_\_

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

Ans: \_\_\_\_\_

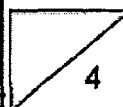
18. Express  $\frac{3}{7}$  as a decimal corrected to 2 decimal places.

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?

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

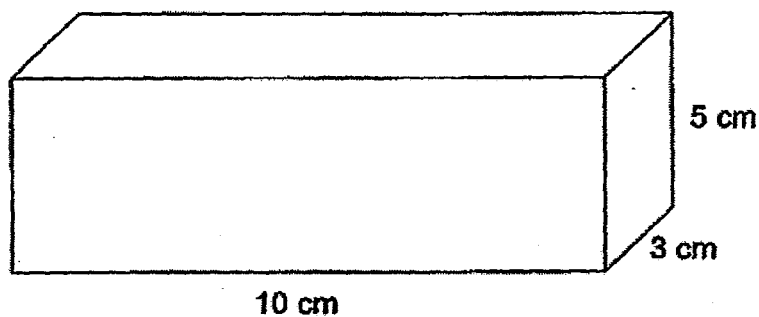
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Ans: \_\_\_\_\_

21. Find the value of  $0.26 \times 4$ .

Ans: \_\_\_\_\_

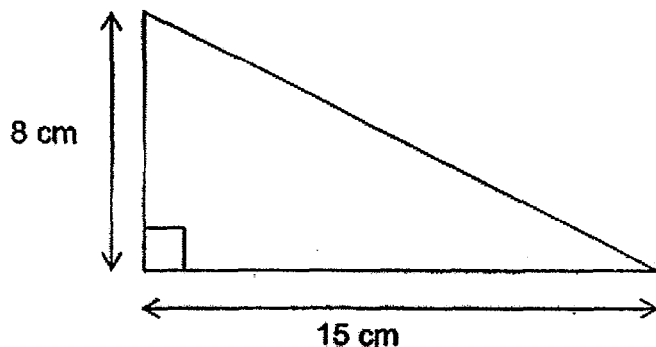
22. Find the volume of the cuboid below.



Ans: \_\_\_\_\_  $\text{cm}^3$



23. Find the area of the triangle below.



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Ans: \_\_\_\_\_ cm<sup>2</sup>

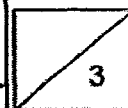
24. Find the value of  $1\frac{2}{3} + \frac{3}{5}$ .

Ans: \_\_\_\_\_

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

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

Ans: \_\_\_\_\_



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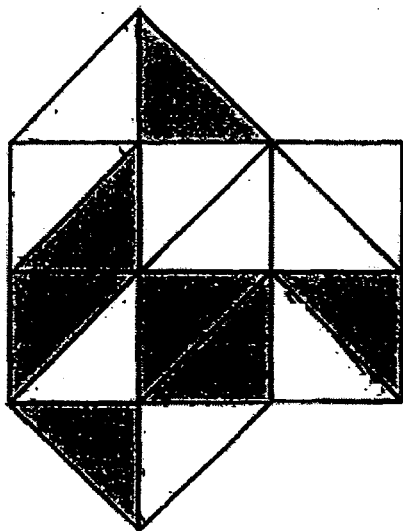
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**Ans:** \_\_\_\_\_

- Ans:**

29. How many more triangles must be shaded such that  $\frac{3}{4}$  of the figure is shaded?

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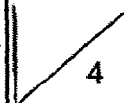


Ans: \_\_\_\_\_

30.  $\frac{3}{4}$  of David's money is equal to  $\frac{4}{7}$  of Calvin's money. Calvin has \$30 more than David. How much money does David have?

Ans: \$ \_\_\_\_\_

-End of paper-  
Check your work thoroughly.



**SINGAPORE CHINESE GIRLS' SCHOOL**

**FIRST SEMESTRAL ASSESSMENT 2015**

**PRIMARY 5**

**MATHEMATICS**

**PAPER 2**

**Name :** \_\_\_\_\_ (      )

**Class :** Primary 5

<b>Paper 2</b>	<b>Mark</b>	<b>Max Mark</b>
		<b>60</b>

<b>Parent's Signature</b>

**18 Questions**  
**60 Marks**

**Total Time For Paper 2: 1 h 40 min**

**INSTRUCTIONS TO CANDIDATES**

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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?

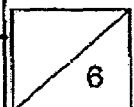
Ans: \_\_\_\_\_

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

Ans: \$ \_\_\_\_\_

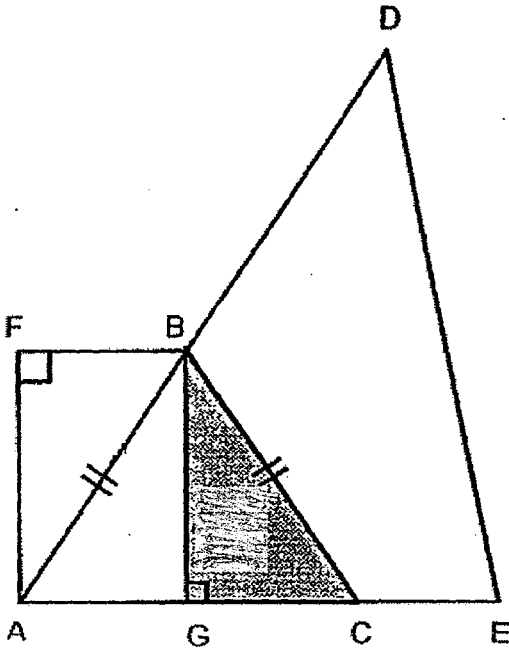
3. An orange and a pear cost \$1.15. An orange and an apple cost \$1.35. Peter bought 4 oranges, 2 apples and 1 pear for \$4.30. How much does a pear cost?

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?

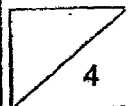
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Ans: \_\_\_\_\_

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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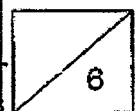
(50 marks)

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

Ans: \_\_\_\_\_ [ 3 ]

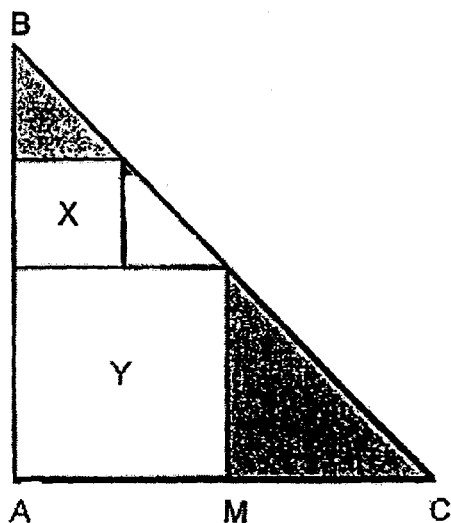
7. There are 50 3-legged chairs and 4-legged chairs in the hall. There are 178 legs in total. How many 3 legged-chairs are there?

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  $64 \text{ cm}^2$ , find the area of the shaded figure.

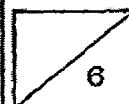
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Ans: \_\_\_\_\_ [ 3 ]





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.

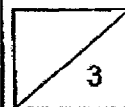
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Number of dots				
Figure Number				

- 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 ]



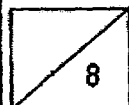
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11. Miss Phua saved some 20-cent coins and 50-cent coins in the ratio of 3 : 4 in a box. She then decided to replace  $\frac{1}{3}$  of the 20-cent coins with the same number of 50-cent coins. The value of the amount she saved increased by \$4.50.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



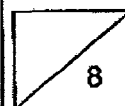
13. Jonathan and Kenneth shared a sum of money in the ratio of 3 : 4. After Jonathan spent  $\frac{1}{6}$  of his money and Kenneth spent \$15 of his money, both Jonathan and Kenneth had the same amount of money left. How much money did they have at first?

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Ans: \_\_\_\_\_ [ 4 ]

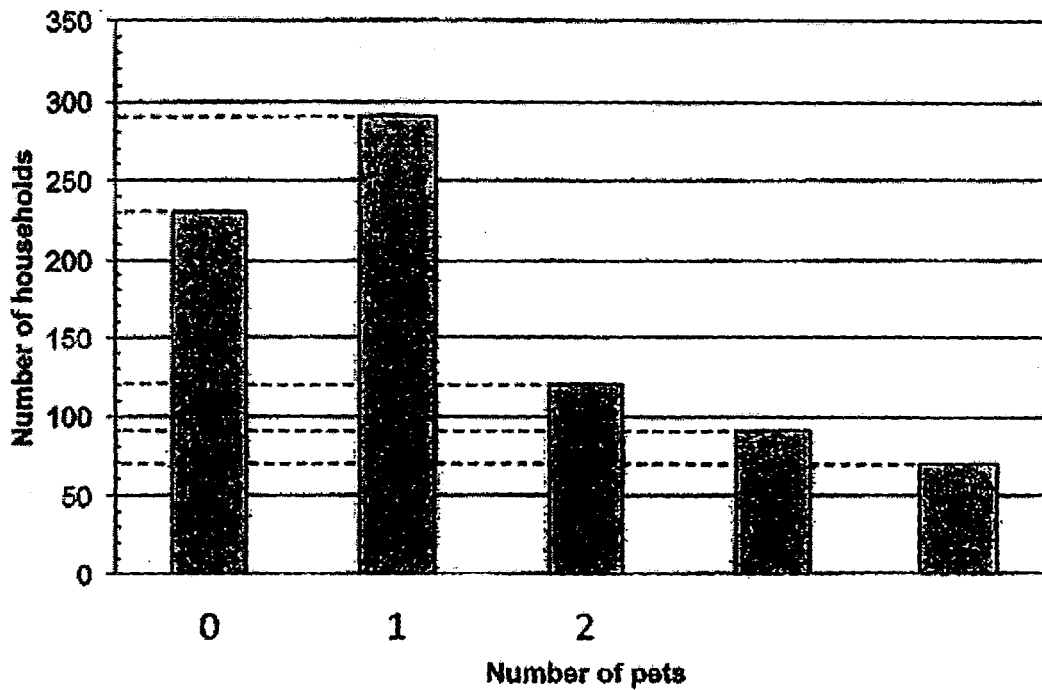
14. Peter, James and Samuel shared some stamps. The number of stamps Peter had was  $\frac{1}{3}$  of the number of stamps Samuel had. Samuel had twice as many stamps as James. Samuel had 30 more stamps than James. How many stamps did they have altogether?

Ans: \_\_\_\_\_ [ 4 ]



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

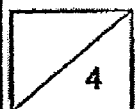
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- a) Express the number of households with 2 pets as a fraction of the total number of households.
- b) Find the total number of pets among all the households.

Ans: a) \_\_\_\_\_ [2]

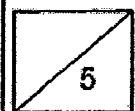
b) \_\_\_\_\_ [2]



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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?

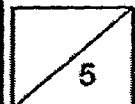
Ans: \_\_\_\_\_ [5]



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?

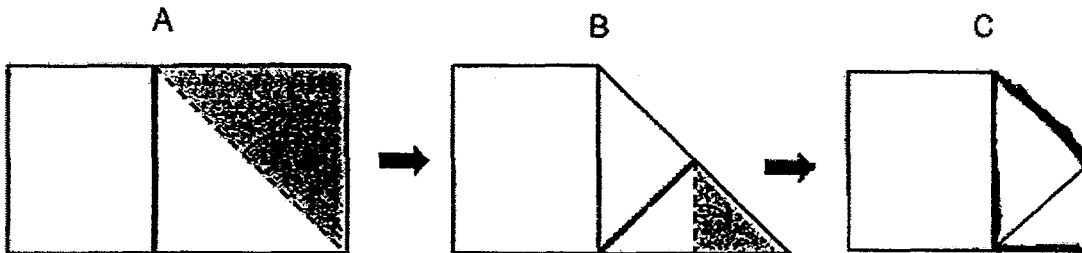
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Ans: \_\_\_\_\_ [5]



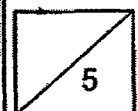
18. The figure below shows a piece of paper folded twice along the dotted lines shown below. Given that the breadth of the paper is  $\frac{4}{7}$  of the length of the paper and the perimeter of the paper is 110cm, find the ratio of the area of the unfolded paper in the beginning to the area of the 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) $150 \text{ cm}^3$       23) $60 \text{ cm}^2$       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

$$70 \div 2 = 35$$

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

$$35 + 32 = 67$$

$$12 - 7 = 5$$

30) $\$96$



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)

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 Charlene had \$32.80 altogether. Jamie has 3 times as much money as Charlene. 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?

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

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

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

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

$$= \$3.85$$

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

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

Ans: \$0.45

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

$$= \$0.70$$

Ans: \$0.70

Do not write in this column

6

Do not write in this column

4

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 this figure is shaded?

3u ÷ 2 = 1.5u  
change to 6u  
so that I won't  
have a decimal fraction  
to use with.

$$ABC : ADE$$

$$3 : 7$$

$$= 6 : 14$$

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

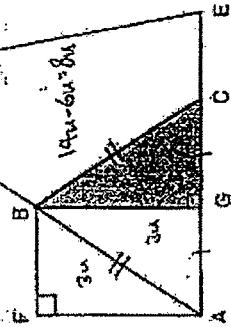
$$\triangle GBC = 3 \text{ units}^2$$

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

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

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

Ans:



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?

$$\frac{32 \text{ magazines}}{44 \text{ encyclopedias}}$$

$$\div 2$$

$$\frac{16 \text{ magazines}}{22 \text{ encyclopedias}}$$

$$16 + 16 = 32 \text{ magazines}$$

$$32 - 22 = 10$$

Ans: 10

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

Constant Difference

now  

$$\begin{array}{r} 2x \\ 3x \\ \hline 5x \\ 5x + 10 = 2x + 10 \\ 3x = 10 \\ x = 10/3 \end{array}$$

10 years ago  

$$\begin{array}{r} 2x \\ 3x \\ \hline 5x \\ 5x - 10 = 2x - 10 \\ 3x = 10 \\ x = 10/3 \end{array}$$

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 stools are there?

Assume all are 4-legged chairs

Total —  $50 \times 4 = 200$  legs

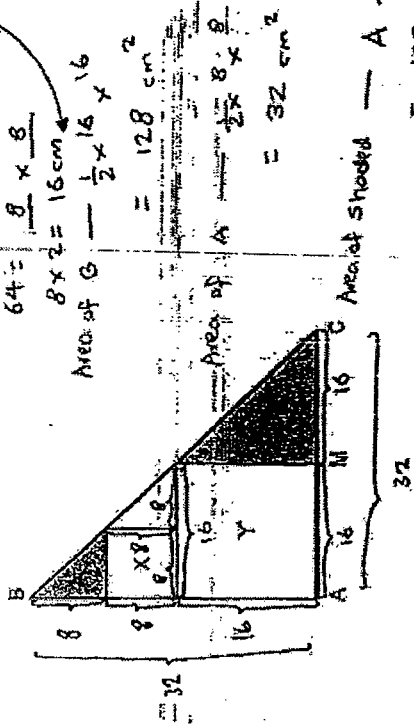
Extra —  $200 - 178 = 22$

Difference —  $4 - 3 = 1$

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

Guess & Check	No. of 3-legged	No. of 4-legged	Total no. of legs	Check	Must have
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	101

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  $64 \text{ cm}^2$ , find the area of the shaded figure.



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

Ans:  $160 \text{ cm}^2$  (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 —  $729 \div 27$   
 $= 27$

$27 = 3 \times 3 \times 3$

Ans: 3 cm (3)

10. Study the pattern below.

Number of dots	Fig. 1	Fig. 2	Fig. 3	Fig. 4
Figure Number	1	2	3	4

- a) How many dots are there in Figure 10? (1 mark)  
b) Which figure is made up of 55 dots? (2 marks)

a) Pattern:  $2 + (\text{Fig number} \times 2)$

Fig 10  $= 2 + (10 \times 2)$

$= 2 + 20$   
 $= 22$

b)

$= 2 + (\text{Fig no.} \times 2) = 58$

$58 - 2 = 56$

$56 \div 2 = 28$

Ans: a)  $22$  [1]

b) Fig  $28$  [2]

Does not  
add coins

Does not  
add coins

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.  
No. of value  $\frac{1}{3}$  after that

Difference  $= 50 - 20 = 30$

Total difference  $= 54.50$

No. of sets  $= 54.50 \div 30 = 1.8167$

$= 1.8167 \times 3 = 5.45$

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  $= 15 \times 4 = 60$

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  
 $= 3 : 21$  24

$8u - 3u = 5u$

$21u - 16u = 5u$

$5u = \$30$

$1u = \$30 \div 5 = \$6$

Wendy at first  $8u = 8 \times \$6$

$= \$48$

Ans:  $548$  [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

$J : K$   
 $3 : 4$   
 $\times 2 \quad \begin{cases} 6 : 8 \end{cases}$   
 before  
 after  
 $6 - \$15 = 5 : 5$   
 we can infer that Kenneth also has 5 units left.

$$\begin{aligned}
 3u &= \$15 \\
 1u &= \$5 \\
 \text{At first, } 14u &= 14 \times 5 \\
 &= \$70
 \end{aligned}$$

Ans: \$70 [4]

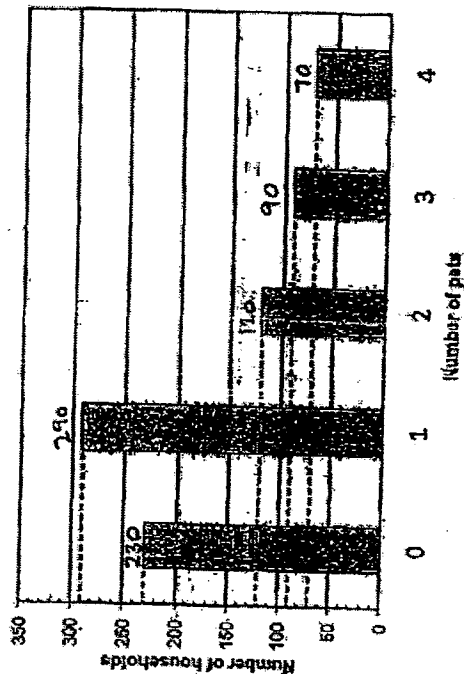
14. Peter, James and Samuel shared some stamps. The number of stamps Peter had was  $\frac{1}{3}$  of the number of stamps Samuel had. Samuel had twice as many stamps as James. Samuel had 60 more stamps than James. How many stamps did they have altogether?

Repeated Identity

$$\begin{aligned}
 P : S : J \\
 1 : 3 : 2 \\
 \times 2 \quad 2 : 6 : 4 \\
 \times 3 \quad 6 : 30 : 20 \\
 \hline
 \text{Total } 114 &= 11 \times 10 \\
 &= 110
 \end{aligned}$$

Ans: 110 [4]

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.

$$\begin{aligned}
 \text{Total} &= 230 + 290 + 110 + 90 + 70 \\
 &= 800
 \end{aligned}$$

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

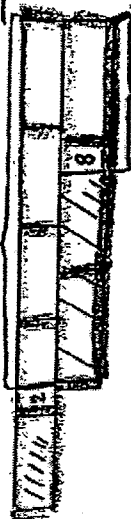
$$\begin{aligned}
 &= (230 \times 0) + (290 \times 1) + (110 \times 2) + (90 \times 3) + (70 \times 4) \\
 &= 290 + 240 + 220 + 270 + 280 \\
 &= 1080
 \end{aligned}$$

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

b) 1080 [2]

16. At the supermarket, Eljesta 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? Remember to check your work



$$\begin{aligned} 1 \text{ part} &= \$18 - \$8 \\ &= \$10 \end{aligned}$$

$$\begin{aligned} 3 \text{ parts} &= \$10 \times 3 \\ &= \$30 \end{aligned}$$

$$\begin{aligned} 4 \text{ units} &= \$30 \times 2 \\ &= \$60 \end{aligned}$$

$$\begin{aligned} 1 \text{ unit} &= \$60 \div 4 \\ &= \$15 \end{aligned}$$

$$\begin{aligned} \text{At first, } \$u &= \$15 \times 5 \\ &= \$75 \end{aligned}$$

Ans: \$75



17. There is an equal number of girls in Primary 6A and in Primary 6B.  $\frac{3}{4}$  of the

pupils in 6A are girls while  $\frac{1}{5}$  of the pupils in 6B are boys. Given that there is a total of 14 boys in both classes, how many more girls than boys are there altogether?

Ratio Fraction/ Ratio

6A:  $G:3$   $G:3$   
6B:  $B:4$   $B:4$   
Since number of girls are equal, we make their ratio the same.  
 $G:3$   $B:4$   
 $G:12$   $B:16$   
Difference:  $16 - 12 = 4$

$$4u + 3u = 14$$

$$7u = 14$$

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

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

$$\begin{aligned} \text{Difference} &= 24u - 7u \\ &= 17u \end{aligned}$$

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

Function (Equal Fraction concept)

6A:  $G:3$   $G:3$   
6B:  $B:4$   $B:4$   
Since number of girls are equal, we make their ratio the same.  
 $G:12$   $B:16$   
Difference:  $16 - 12 = 4$

$$\begin{aligned} \frac{3}{4}A &= \frac{4}{5}B \\ \frac{12}{16}A &= \frac{12}{15}B \end{aligned}$$

$$4u + 3u = 14$$

$$7u = 14$$

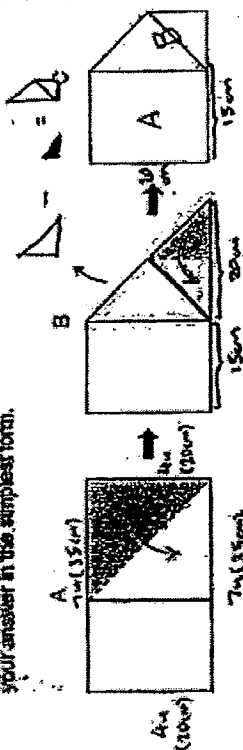
$$u = 14 \div 7 = 2$$

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

Ans: 34



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 to the area of the folded paper in the end. Give your answer in the simplest form.



$$4u + 7u + 4u + 7u = 22u$$

$$22u = 110$$

$$u = 110 \div 22 = 5$$

$$\text{Length} = 7 \times 5 = 35\text{cm}$$

$$\text{Breadth} = 4 \times 5 = 20\text{cm}$$

$$35\text{cm} - 20\text{cm} = 15\text{cm}$$

$$\text{Area of A} = 15 \times 20 = 300\text{cm}^2$$

$$\text{Area of B} = \text{Big } \Delta - \text{Small shaded } \Delta$$

$$\text{Area of Big } \Delta = \frac{1}{2} \times 20 \times 35 = 350\text{cm}^2$$

$$= 350\text{cm}^2$$

$$\text{Area of small shaded } \Delta = \frac{1}{2} \times 10 \times 10 = 50\text{cm}^2$$

$$\text{Area of B} = 350\text{cm}^2 - 50\text{cm}^2 = 300\text{cm}^2$$

$$\text{Area of folded} = A + B$$

$$= 300 + 300 = 600\text{cm}^2$$

$$\text{Area of unfolded} = 35\text{cm} \times 20\text{cm} = 700\text{cm}^2$$

$$\text{Unfolded} : \text{Folded}$$

$$700 : 600$$

$$= 7 : 6$$

$$\text{Ans: } 7 : 6$$

Method 2: Find area of B.



Area of square =  $50 \times 50 = 2500\text{cm}^2$

Area of shaded square =  $50 \times 50 = 2500\text{cm}^2$

Area of B =  $2500\text{cm}^2 - 2500\text{cm}^2 = 0\text{cm}^2$

Area of unfolded =  $35\text{cm} \times 20\text{cm} = 700\text{cm}^2$

Area of folded =  $300\text{cm}^2 + 300\text{cm}^2 = 600\text{cm}^2$

Unfolded : Folded

$700 : 600$

$= 7 : 6$

Ans:  $7 : 6$

End of paper

Check your work thoroughly.