



CATHOLIC HIGH SCHOOL
SEMESTRAL ASSESSMENT ONE (2017)
PRIMARY FIVE
MATHEMATICS
PAPER 1
(BOOKLET A)

Name : _____ ()

Class : Primary 5 _____

Date : 5 May 2017

Total Time for Booklets A and B: 1 hour

15 questions

20 marks

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Shade your answers in the Optical Answer Sheet (OAS) provided.

The use of calculators is **NOT** allowed.

Booklet A and B consist of 11 printed pages.

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.
For each question, four options are given. One of them is the correct answer.
Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical
Answer Sheet. All diagrams are not drawn to scale. (20 marks)

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

$$245 \times 9000 = 245 \times \boxed{} \times 9$$

- (1) 10
 - (2) 100
 - (3) 1000
 - (4) 10 000
-

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

$$\boxed{} : 16 = 5 : 4$$

- (1) 9
 - (2) 15
 - (3) 17
 - (4) 20
-

3. In 183 432, what does the digit 4 stand for?

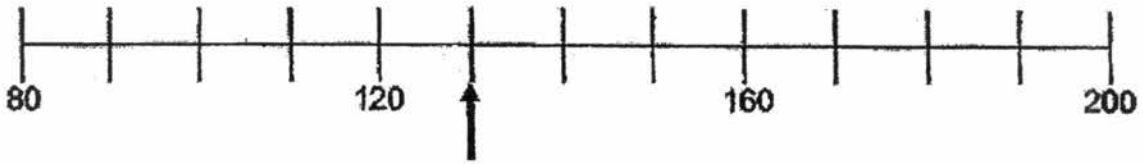
- (1) 4 tens
 - (2) 4 hundreds
 - (3) 4 thousands
 - (4) 4 ten thousands
-

4. Express $\frac{2}{5}$ as a decimal.

- (1) 0.25
 - (2) 0.2
 - (3) 0.04
 - (4) 0.4
-

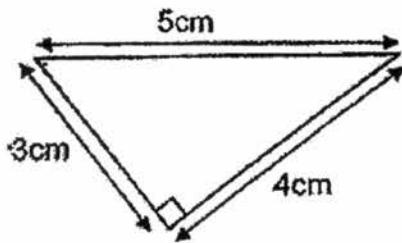
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5. In the number line below, what is the number indicated by the arrow?



- (1) 10
- (2) 30
- (3) 130
- (4) 140

6. What is the area of the triangle shown below?



- (1) 6 cm^2
- (2) 7 cm^2
- (3) 10 cm^2
- (4) 12 cm^2

7. The duration of a Mathematics examination was $1\frac{1}{2}$ h. It started at 1100.
What time did the examination end?

- (1) 0930
- (2) 0948
- (3) 1212
- (4) 1230

(Go on to the next page)

8. Complete the following pattern.

233 290, 363 290, 493 290, _____, 753 290, 883 290

- (1) 523 290
 - (2) 623 290
 - (3) 653 290
 - (4) 723 290
-

9 Mrs Wan bought some cakes for 12 students. Each student ate $\frac{3}{4}$ of a cake. How many cakes did Mrs Wan buy?

- (1) 9
 - (2) 12
 - (3) 16
 - (4) 36
-

10. There are some char siew buns and 15 red bean buns. The ratio of the number of red bean buns to the number of char siew buns is 1 : 3. How many more char siew buns than red bean buns are there?

- (1) 10
 - (2) 30
 - (3) 45
 - (4) 60
-

11. At a party, every 6th guest received a pen and every 9th guest received a key chain. Who will be the first guest to receive both a pen and a key chain?

- (1) 18th guest
 - (2) 36th guest
 - (3) 54th guest
 - (4) 81th guest
-

(Go on to the next page)

12. Richard had $\frac{5}{9}$ kg of flour. He used $\frac{2}{5}$ of the flour to make a cake. How much flour was left?

(1) $\frac{2}{9}$ kg

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

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

(4) $\frac{7}{45}$ kg

13. Jonathan had jogged $\frac{1}{4}$ km. How many more kilometres did he have to jog to complete 4 km?

(1) 1 km

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

(3) 3 km

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

14. The product of two numbers is 900. One of the numbers is 20. What is the difference between the two numbers?

(1) 25

(2) 45

(3) 65

(4) 90

(Go on to the next page)

15. $\frac{2}{3}$ of the area of a triangle is equal to $\frac{1}{4}$ of the area of a rectangle. What is the ratio of the area of the triangle to the area of the rectangle?

- (1) 2 : 1
- (2) 3 : 8
- (3) 8 : 3
- (4) 3 : 4

END OF BOOKLET A

(Go on to the next page)



CATHOLIC HIGH SCHOOL
SEMESTRAL ASSESSMENT ONE (2017)

PRIMARY FIVE
MATHEMATICS

PAPER 1
(BOOKLET B)

Name : _____ ()

Class : Primary 5 _____

Date : 5 May 2017

Total Time for Booklets A and B: 1 hour

15 questions

25 marks

Booklet A	
Booklet B	
Total	

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Write your answers in this booklet.

The use of calculators is **NOT** allowed.

Booklet A and B consist of 11 printed pages.

Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. All diagrams are not drawn to scale.

Do not write
in this space.

(5 marks)

16. Write five million, three thousand and forty-nine in numeral.

Ans: _____

17. Find the value of $806\ 000 \div 2000$.

Ans: _____

18. Rachael has 2 m of ribbon. She used it to make 5 identical bows. How much ribbon is used for each bow? Express your answer as a fraction in the simplest form.

Ans: _____ m

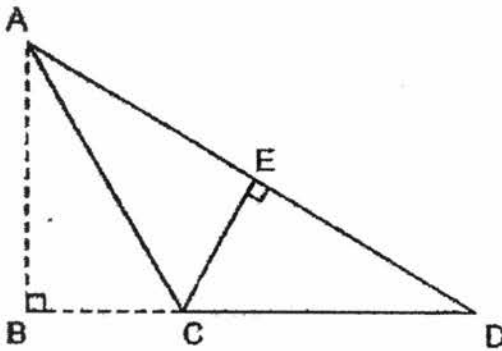
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19. The ages of three brothers are in the ratio $1 : 3 : 7$. The sum of their ages is 121 years old. How old is the youngest brother?

Do not write
in this space.

Ans: _____ years old

20. In the figure below, $\triangle ACD$ is a triangle. Given that CD is the base, name the height of triangle ACD .



Ans: _____

Total marks for questions 16 to 20

5

(Go on to the next page)

Questions 21 to 30 carry 2 marks each. Show your working and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. All diagrams are not drawn to scale. (20 marks)

Do not write in this space.

21. Find the value of $36 - 16 + 4 + 20 \times 2$.

Ans: _____

22. Mrs Pung bought a piece of cloth. She cut part of the cloth into 10 equal pieces of $\frac{1}{12}$ m each and was left with 4 m of cloth. How much cloth did she buy? Express your answer as a mixed number in the simplest form.

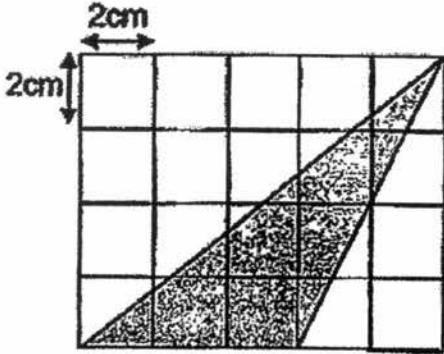
Ans: _____ m

23. A basket and 2 mangoes have a mass of 880 g. A basket and 1 mango have a mass of 690 g. What is the mass of the basket?

Ans: _____ g

(Go on to the next page)

24. Find the area of the shaded triangle.



Do not write
in this space.

Ans: _____ cm^2

25. 11 students stood in a straight line at equal distance apart from each other. The distance between the first and the last student was 440 cm. Find the distance between each student.

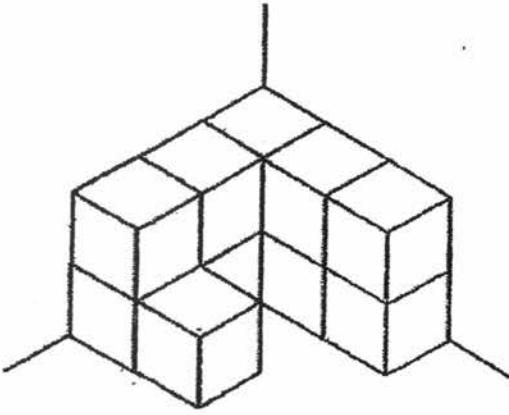
Ans: _____ cm

26. Jean had \$27 and Kyler had \$45. Then, Jean received \$8 from her mother. What is the ratio of Jean's money to the total of Jean's and Kyler's money in the end? Express your answer in the simplest form.

Ans: _____

(Go on to the next page)

27. The solid below is made up of 1-cm cubes. What is the volume of the solid?



Do not write
in this space.

Ans: _____ cm^3

28. Thomas spent \$80 and had $\frac{1}{6}$ of his money left. How much money did he have at first?

Ans: \$ _____

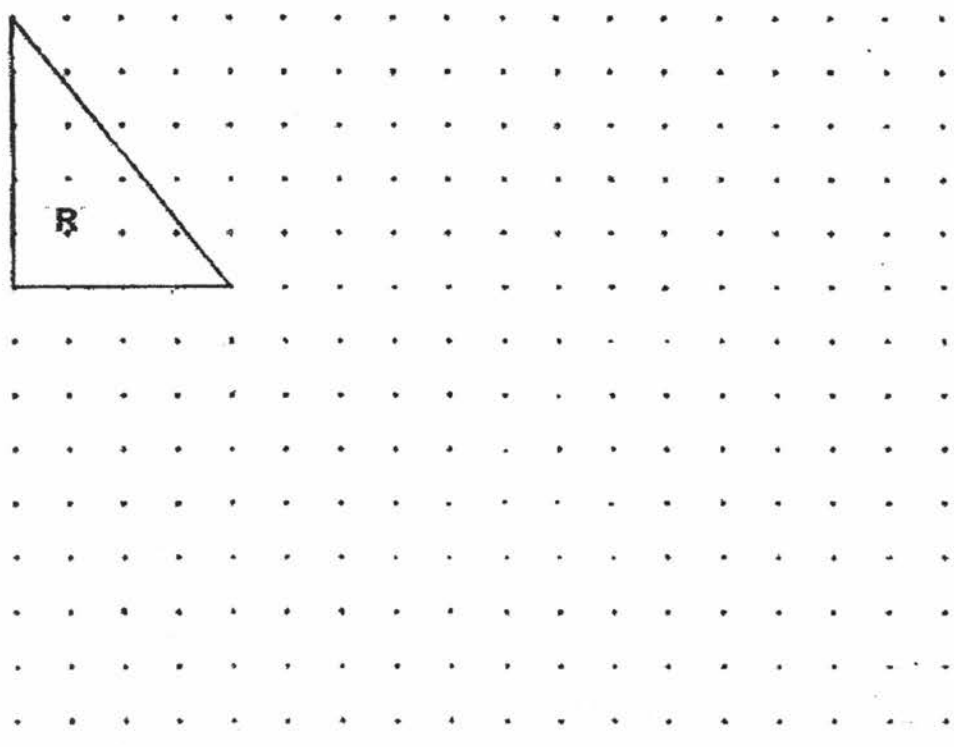
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in this space.

29. Kenny had the exact amount to buy 9 burgers. When he bought 6 burgers, he would have \$9 left. How much money did he have at first?

Ans: \$ _____

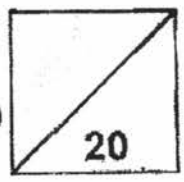
30. A right-angled triangle R with a base of 4 units is drawn by joining dots on the square grid below with three straight lines. In the same way, draw a different triangle that is not a right-angled triangle with the same area and base as triangle R.



Total marks for questions 21 to 30

END OF BOOKLET B
END OF PAPER 1

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CATHOLIC HIGH SCHOOL
SEMESTRAL ASSESSMENT ONE (2017)
PRIMARY FIVE
MATHEMATICS
PAPER 2

Name : _____ ()

Class : Primary 5 _____

Date : 5 May 2017

Total Time: 1 h 30 min

17 questions

55 marks

Parent's Signature: _____

Paper 1 Booklet A	20
Paper 1 Booklet B	25
Paper 2	55
Total Marks	100

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Write your answers in this booklet.

The use of an approved calculator is expected, where appropriate.

This booklet consists of 13 printed pages.

Questions 1 to 5 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. All diagrams are not drawn to scale.

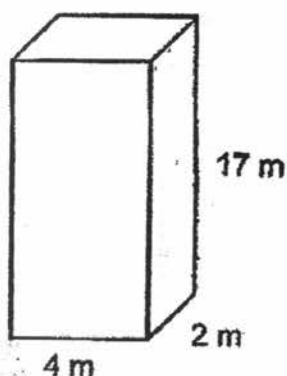
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(10 marks)

1. A packet of rice has a mass of $3\frac{2}{5}$ kg. Its mass is $1\frac{1}{6}$ kg more than a packet of flour. What is the mass of the packet of flour? Express your answer as a mixed number in the simplest form.

Ans: _____ kg

2. What is the volume of the following cuboid?



Ans: _____ m³

3. Caleb sold $2\frac{3}{7}$ kg of rice on Monday. He sold thrice as much rice on Tuesday than on Monday. How many more kilograms of rice did he sell on Tuesday? Express your answer as a mixed number in the simplest form.

Do not write
in this space

Ans: _____ kg

4. When Kumar feeds his fish 12 pellets per day, a tin of pellets will last 15 days. How many days will the same tin of pellets last when he feeds his fish 9 pellets per day?

Ans: _____

5. The cost of a plate is twice the cost of a cup. The cost of 4 identical cups and 6 identical plates is \$32. What is the cost of a cup?

Do not write
in this space

Ans: \$ _____

For questions 6 to 17, 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.

Do not write in this space.

(45 marks)

6. Daniel and Wilson had an equal number of marbles at first. Daniel sold $\frac{1}{4}$ of his marbles and Wilson sold $\frac{5}{12}$ of his marbles. Daniel sold 70 marbles fewer than Wilson. How many marbles did each of them have at first?

Ans: _____ [3]

7. 20 boys had to make some lanterns for Chinese New Year. One of them fell sick and the rest of the boys had to make 2 more lanterns each. How many lanterns did they make altogether?

Ans: _____ [3]

8. An eraser cost 30 cents and a packet of 5 erasers cost \$1. Jonathan bought exactly 27 erasers. What was the least amount of money that Jonathan spent on the erasers?

Do not write
in this space

Ans: _____ [3]

- 9 Samantha had 9 kg of sugar. She used $1\frac{4}{5}$ kg of sugar to make some muffins. She then used $\frac{2}{9}$ of the remainder to make some pancakes. How much sugar did she use to make pancakes? Express your answer as a mixed number in the simplest form.

Ans: _____ [3]

10. At a party, each girl was given 3 balloons and each boy was given 5 balloons. There were 32 children at the party and a total of 116 balloons were given out. How many boys were there at the party?

Do not write
in this space

Ans: _____ [3]

11. Corey had 40 more cards than Dennis. After Corey gave 62 cards to Dennis, Dennis had thrice as many cards as Corey. How many cards did Dennis have at first?

Do not write
in this space

Ans: _____ [4]

12. A shirt cost \$10 and a pair of trousers cost \$3 more. Florence spent \$114 more on trousers than on shirts. The ratio of the number of shirts she bought to the number of trousers she bought was 2 : 3. How much did she spend altogether?

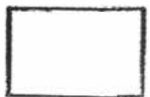
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Ans: _____ [4]

13. Milfred spent $\frac{2}{7}$ of his pocket money on some food and $\frac{2}{5}$ of the remaining pocket money on some stationery. His mother then gave him another \$25 and he had \$9 more than what he had at first. How much was Milfred's pocket money at first?

Do not write
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Ans: _____ [4]

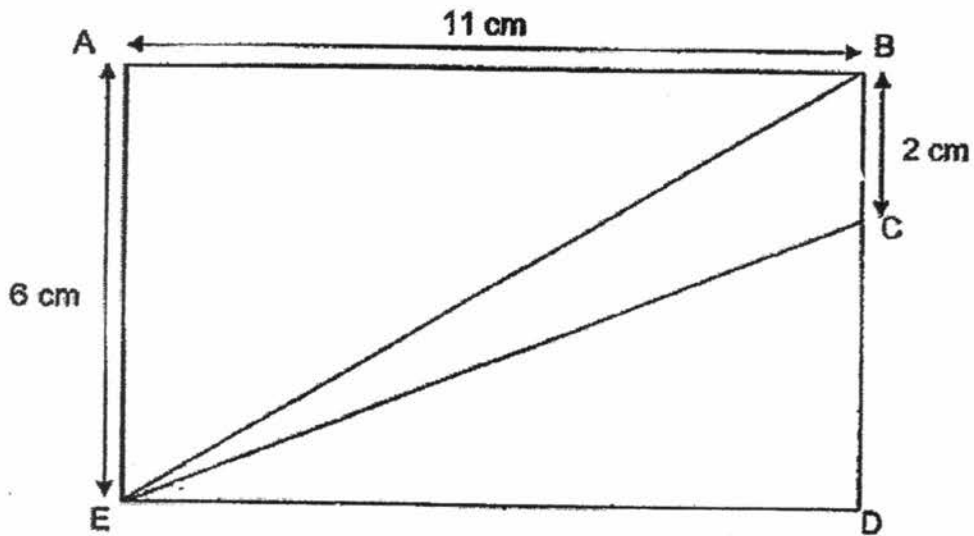


14. At a fruit stall, the ratio of the number of apples to the number of watermelons was 5 : 1. There were 64 more apples than watermelons. The apples were sold at 4 for \$2 and the watermelons were sold at \$6 each. What was the total amount of money collected from the sale of all the apples and watermelons?

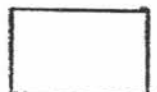
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in this space

Ans: _____ [4]

15. In the figure below, ABDE is a rectangle and EBC is a triangle. Find the ratio of the area of the shaded triangle to the unshaded area. Express your answer in the simplest form. Do not write in this space



Ans: _____ [4]



16. A baker baked 450 donuts and buns. The number of donuts was $\frac{3}{5}$ of the total number of donuts and buns. He sold some buns and the number of donuts became $\frac{9}{13}$ of the total number of donuts and buns. How many buns were sold?

Do not write
in this space

Ans: _____ [5]

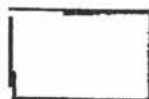
17. George and Lucas had some savings at first. $\frac{1}{4}$ of George's savings was equal to $\frac{2}{5}$ of Lucas' savings. After their father gave \$32 to George, George now had twice as much money as Lucas.

Do not write
in this space

- (a) How much money did George have in the end?
(b) How much money must George give to Lucas so that both of them have the same amount of money?

Ans: (a) _____ [3]

(b) _____ [2]



END OF PAPER 2
CHECK YOUR WORK

YEAR : 2017
LEVEL : PRIMARY 5
SCHOOL : CATHOLIC HIGH SCHOOL
SUBJECT : MATHEMATICS
TERM : SA1

Paper 1 (Booklet A)

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

Paper 1 (Booklet B)

Q16 ANS: 5003049

Q17 $\frac{806\,000}{2000} = 403$

ANS: 403

Q18 ANS: $\frac{2}{5}$ m

Q19 1unit + 3units + 7units = 11units

$$\frac{121}{11} = 11$$

ANS: 11 years old

Q20 ANS: AB

Q21 $\frac{16}{4} = 4$

$$20 \times 2 = 40$$

$$36 - 4 + 40 = 72$$

ANS: 72

Q22 $\frac{1}{12} \times 10 = \frac{10}{12} = \frac{5}{6}$

$$\frac{5}{6} + 4 = 4\frac{5}{6}$$

ANS: $4\frac{5}{6}$ m

Q23 $1B + 2M = 880\text{g}$ ----- (1)

$$1B + 1M = 690\text{g}$$
 ----- (2)

$$(1) - (2): 1M = 190\text{g}$$
 --- (3)

$$(2) - (3): 1B = 500\text{g}$$

ANS: 500 g

Q24 $\frac{1}{2} \times 6 \times 8 = 24$

ANS: 24 cm²

Q25 $440 \div 10 = 44$

ANS: 44 cm

Q26 Jean: $\$27 + \$8 = \$35$

Jean : Jean + Kyler

$$35 : 35 + 45 = 80$$

ANS: 7 : 16

Q27 $5 + 6 = 11$

ANS: 11 cm³

Q28 $1 - \frac{1}{6} = \frac{5}{6}$

5units = \$60

6units = $\frac{60}{5} \times 6 = 72$

ANS: \$72

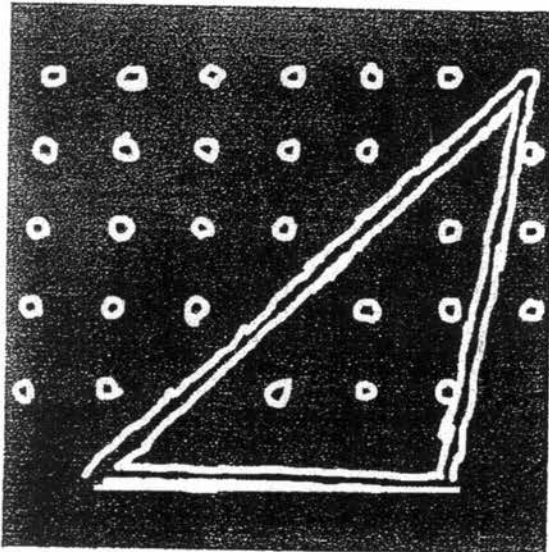
Q29 $9 - 6 = 3$

3units = \$9

9units = $\frac{9}{3} \times 9 = 27$

ANS: \$27

Q30



Paper 2

Q1 Packet of rice $\rightarrow 3\frac{2}{5}$

Packet of flour $\rightarrow 3\frac{2}{5} - 1\frac{1}{6} = 2\frac{7}{30}$

ANS: $2\frac{7}{30}$ kg

Q2 Volume of cuboid $\rightarrow 4 \times 2 \times 17 = 136$

ANS: 136 m^3

Q3 Mass of rice sold on MONDAY $\rightarrow 2\frac{3}{7}$

Mass of rice sold on TUESDAY $\rightarrow 2\frac{3}{7} \times 3 = 7\frac{2}{7}$

Difference $\rightarrow 7\frac{2}{7} - 2\frac{3}{7} = 4\frac{6}{7}$

ANS: $4\frac{6}{7}$ kg

Q4 12 pellets per day \rightarrow 1 tin \rightarrow last 15 days

Total number of pellets $\rightarrow 12 \times 15 = 180$

9 pellets per day can last $180 \div 9 = 20$ days

ANS: 20 days

Q5 cost of PLATE : CUP

2 : 1

1Plate = 2Cups

Cost of 4Cups + 6Plates \rightarrow \$32

4Cups + 12Cups = 16Cups \rightarrow \$32

1Cup \rightarrow \$32 \div 16 = \$2

ANS: \$2

Q6 Number of marbles Daniel : Wilson

(At first) 1 : 1

(Sold) $-\frac{1}{4} = -\frac{3}{12} : -\frac{5}{12}$

$$\frac{5}{12} - \frac{3}{12} = \frac{2}{12}$$

$\frac{2}{12}$ units \rightarrow 70 marbles

At first $\rightarrow \frac{12}{12}$ units $\rightarrow \frac{70}{2} \times 12 = 420$

ANS: 420 marbles

Q7 Original 20 boys

Left (after 1 fell sick) $20 - 1 = 19$ boys

Each had to make 2 more lanterns \rightarrow 1 boy has to make $19 \times 2 = 38$ lanterns

Total number of lanterns made $\rightarrow 38 \times 20 = 760$ lanterns

ANS: 760 lanterns

Q8 1 Eraser \rightarrow \$0.30

Packet of 5 Erasers \rightarrow \$1

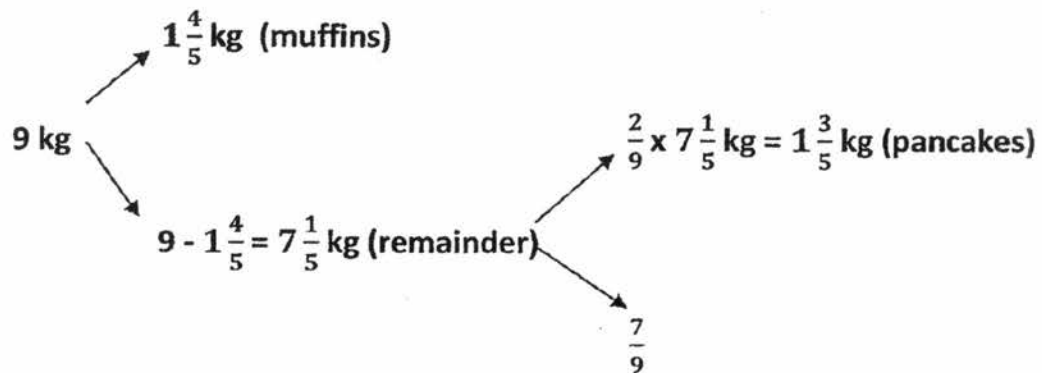
Nearest multiple of 5 to 27 = $5 \times 5 = 25$ erasers

Number of erasers extra = $27 - 25 = 2$ erasers

Least amount of money spent $\rightarrow (5 \times \$1) + (2 \times \$0.30) = \$5.60$

ANS: \$5.60

Q9



ANS: $1\frac{3}{5}$ kg

Q10 Assume all are girls $\rightarrow 32 \times 3 = 96$ balloons

Total Difference $\rightarrow 116 - 96 = 20$ balloons

Difference between 1 boy and 1 girl $\rightarrow 5 - 3 = 2$ balloons

Number of boys = $20 \div 2 = 10$

ANS: 10 boys

Q11 Cards Corey : Dennis

(At first) 1unit+40 : 1unit

(Change) - 62 : + 62

(Final) 1part : 3parts

1unit + 62 = 3parts ----- (1)

1unit + 40 - 62 = 1unit - 22 = 1part ----- (2) X 3

3units - 66 = 3parts ----- (3)

Sub (3) into (1): 1unit + 62 = 3units - 66

1unit = 64

ANS: Dennis had 64 cards at first

Q12 Cost of Shirt \rightarrow \$10

Cost of Trousers \rightarrow \$10 + \$3 = \$13

Number of Shirts : Trousers

2 : 3

1U + (\$3 x 2U) \rightarrow \$114 *

extra cost \rightarrow 1 unit more number of Trousers + each pair of Trousers cost \$3 more

\$13U + \$6U = \$19U

1U \rightarrow 114 \div 19 = 6

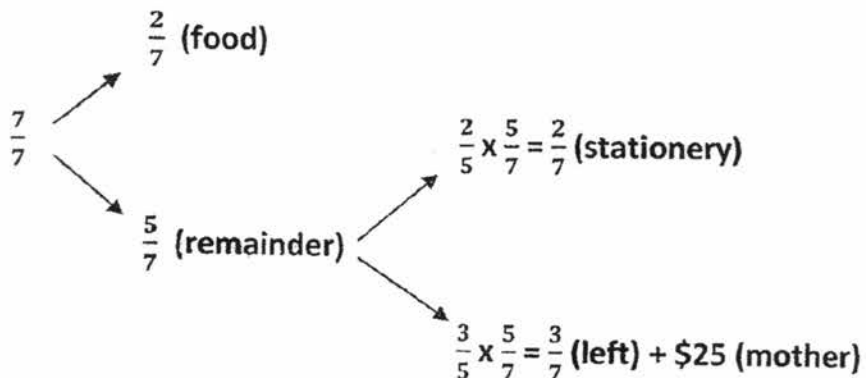
Number of Shirts bought \rightarrow 2 x 6 = 12

Number of Trousers bought \rightarrow 3 x 6 = 18

Amount spent on Shirts + Trousers \rightarrow (\$10 x 12) + (\$13 x 18) = \$354

ANS: \$354

Q13



$$\frac{3}{7} + \$25 = \frac{7}{7} + \$9$$

$$\frac{3}{7} + \$25 - \$9 = \frac{3}{7} + \$16 = \frac{7}{7}$$

$$\frac{4}{7} = \$16$$

$$\frac{7}{7} = \frac{16}{4} \times 7 = \$28$$

ANS: \$28

Q14 Number of Apples : Watermelons

$$5\text{units} : 1\text{unit}$$

$$5\text{units} - 1\text{unit} = 4\text{units} \rightarrow 64$$

$$1\text{unit} \rightarrow 64 \div 4 = 16$$

$$\text{Total number of apples: } 5 \times 16 = 80$$

$$\text{Total amount collected for apples: } (80 \div 4) \times \$2 = \$40$$

$$\text{Total number of watermelons: } 1 \times 16 = 16$$

$$\text{Total amount collected for watermelons: } 16 \times \$6 = \$96$$

$$\text{Total amount collected for apples + watermelons: } \$40 + \$96 = \$136$$

ANS: \$136

Q15 Area of shaded $\rightarrow \frac{1}{2} \times 2 \times 11 = 11 \text{ cm}^2$

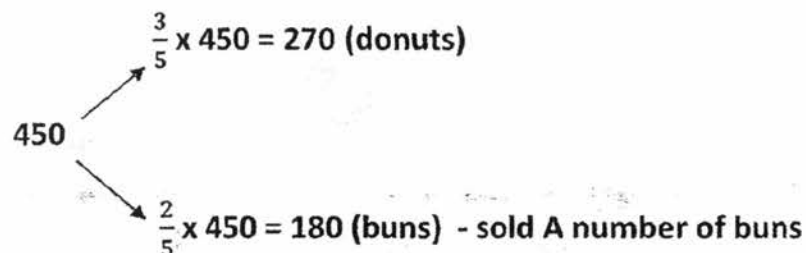
$$\text{Area of unshaded} \rightarrow (11 \times 6) - 11 \text{ cm}^2 = 55 \text{ cm}^2$$

Area of Shaded : Unshaded

$$11 : 55$$

ANS: 1 : 5

Q16



$$\frac{13}{13} - \frac{9}{13} = \frac{4}{13} \text{ (number of buns left)}$$

$$9\text{units} \rightarrow 270 \text{ donuts}$$

4units \rightarrow 120 (number of buns left)

Number of buns sold $\rightarrow 180 - 120 = 60$

ANS: 60 buns sold

Q17 Let George's savings be G and Lucas' savings be L AT FIRST

$$\frac{1}{4}G = \frac{2}{5}L \text{ ----- (1)}$$

$$G + 32 = 2L \text{ ----- (2)}$$

(1) $\div 2 \times 5$:

$$\frac{5}{8}G = L \text{ ----- (3)}$$

Sub (3) into (2):

$$G + 32 = 2 \times \frac{5}{8}G$$

$$32 = \frac{1}{4}G$$

$$G = 32 \times 4 = 128$$

$$G \text{ in the end } \rightarrow 128 + 32 = 160$$

ANS: (a) \$160

$$L \text{ in the end } \rightarrow 160 \div 2 = 80$$

$$\text{Difference } \rightarrow 160 - 80 = 80$$

G must give $80 \div 2 = 40$ to L so both have the same amount

ANS: (b) \$40