

CATHOLIC HIGH SCHOOL
MID-YEAR EXAMINATION 2014
MATHEMATICS
PRIMARY 5
PAPER 1
(BOOKLET A)

Name : _____ ()

Class: Primary 5 _____

Date: 20 May 2014

Total Time for Booklets A and B: 50 min

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.

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. In 1 234 567, which digit is in the ten thousands place?

- (1) 1
 - (2) 2
 - (3) 3
 - (4) 4
-

2. What is the sum of all the common factors of 8 and 12?

- (1) 6
 - (2) 7
 - (3) 14
 - (4) 15
-

3. Express 12 : 20 in its simplest form.

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

4. Round off 3.175 to the nearest tenth.

- (1) 3.1
 - (2) 3.2
 - (3) 3.17
 - (4) 3.18
-

(Go on to the next page)

5. Find the value of $\frac{4}{7} - \frac{1}{3}$

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

(2) $\frac{5}{21}$

(3) $\frac{7}{21}$

(4) $\frac{12}{21}$

6. $\frac{6}{15} = \frac{\boxed{}}{35}$

What is the missing number in the box?

(1) 7

(2) 2

(3) 14

(4) 26

7. $245 \times 48 = 245 \times 50 - \boxed{}$

What is the missing number in the box?

(1) 48

(2) 2

(3) 245

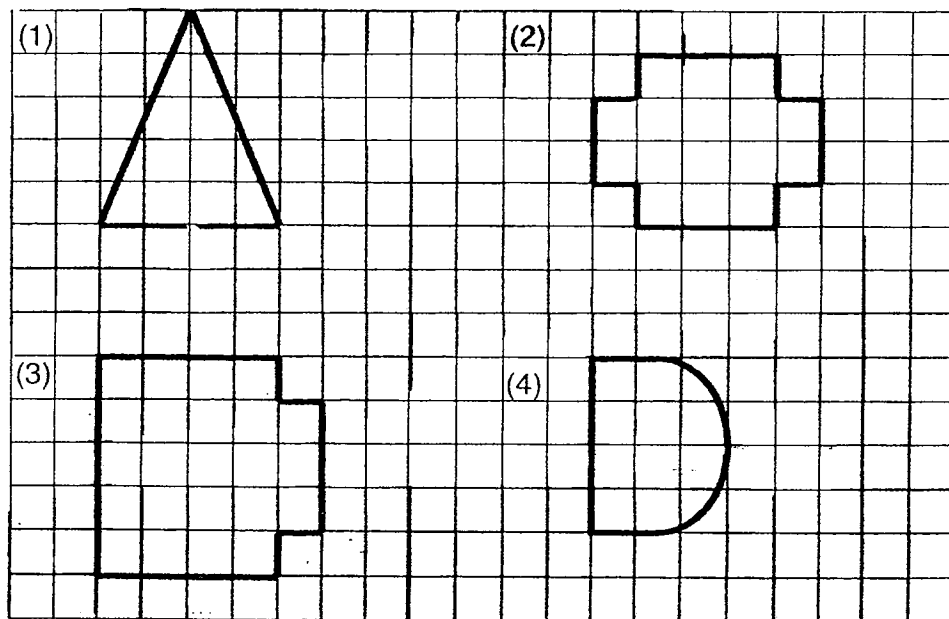
(4) 490

(Go on to the next page)

8. The area of a square is 36 cm^2 . What is the length of each side of the square?

- (1) 6 cm
 - (2) 9 cm
 - (3) 12 cm
 - (4) 18 cm
-

9. The following figures are drawn on a square grid.
Which one of the following figures has 2 lines of symmetry?



(Go on to the next page)

10. Find the product of $\frac{3}{4}$ and 12.

(1) $\frac{1}{16}$

(2) $2\frac{1}{4}$

(3) 9

(4) 16

11. Joshua bought a sack of coffee powder. He repacked the coffee powder equally into six smaller bags. The mass of coffee powder in each bag was 1.3 kg. He had 0.4 kg of coffee powder left unpacked. How much coffee powder did Joshua buy at first?

(1) 1.7 kg

(2) 7.4 kg

(3) 7.8 kg

(4) 8.2 kg

12. The number of cookies Peter has to the number of cookies James has is 5 : 3. Peter has 20 cookies more than James. How many cookies do they have altogether?

(1) 10

(2) 30

(3) 50

(4) 80

(Go on to the next page)

13. Joseph bought $\frac{5}{8}$ kg of flour. He packed the flour equally into 4 bags with no flour left over. What is the total mass of 1 bag of flour?

(1) $\frac{5}{32}$ kg

(2) $\frac{1}{16}$ kg

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

(4) $6\frac{2}{5}$ kg

14. John bought $\frac{4}{5}$ m of string. He then used $\frac{3}{4}$ of the string to tie a parcel. How much of the string was left?

(1) $\frac{1}{20}$ m

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

(3) $\frac{3}{20}$ m

(4) $\frac{3}{5}$ m

15. Abigail and Bonnie had an equal number of marbles at first. After Abigail gave away 150 marbles and Bonnie lost 30 marbles, Bonnie had thrice as many marbles as Abigail. How many marbles did Abigail have in the end?

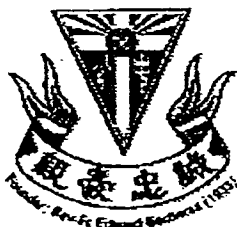
(1) 60

(2) 90

(3) 120

(4) 180

END OF BOOKLET A



CATHOLIC HIGH SCHOOL
MID-YEAR EXAMINATION 2014
MATHEMATICS
PRIMARY 5
PAPER 1
(BOOKLET B)

Name : _____ ()

Class: Primary 5. _____

Date: 20 May 2014

Total Time for Booklets A and B: 50 min

15 questions

20 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 12 printed pages.

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 in this space.

16. Write one million, seven hundred and eighty-nine thousand and thirty-five in figures.

Ans:

17. Express 3.375 as a mixed number in the simplest form.

Ans: _____

18. Round off 27 495 to the nearest thousand.

Ans: _____

(Go on to the next page)

19. Joseph had 13 000 sweets. He packed all of them equally into bags of 500 sweets each. How many bags did Joseph use?

Do not write
in this space.

Ans: _____

20. Sam made some fruit punch with $1\frac{1}{4}$ ℓ of orange juice and $2\frac{1}{6}$ ℓ of water. How much fruit punch did Sam make?

Ans: _____ ℓ

21. What is the smallest 5-digit odd number that can be formed using the following digits? All digits must be used and each digit can only be used once.

3	6	0	5	2
---	---	---	---	---

Ans: _____

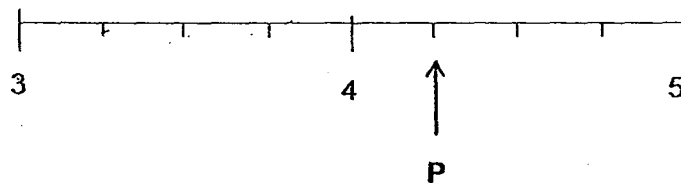
(Go on to the next page)

22. Find the value of $870 - 10 \times (35 - 15) + 2$.

Do not write
in this space.

Ans: _____

23. What is the value of P in the number line below?
Give your answer as a decimal.



Ans: _____

(Go on to the next page)

24. A machine can print 3000 cards every 15 minutes. How many cards can it print in 1 hour?

Do not write
in this space.

Ans: _____

25. Jimmy has 30 marbles. Sammy has 40 marbles more than Jimmy. Find the ratio of Sammy's marbles to the total number of marbles the two boys have.
Express the ratio in the simplest form.

Ans: _____

Total marks for questions 16 to 25

(Go on to the next page)

Questions 26 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. (10 marks)

Do not write
in this space.

26. Find the value of $5 \div 3$. Give your answer correct to 2 decimal places.

Ans: _____

27. Arrange the following fractions from the smallest to the largest.

Ans: _____

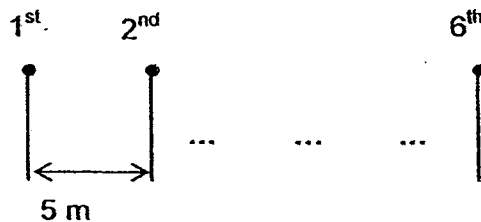
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28. The ratio of the number of hamsters to the number of rabbits to the number of chinchillas in a pet shop is 4 : 5 : 3. There are a total of 288 animals. How many chinchillas are there in the pet shop?

Do not write
in this space.

Ans: _____

29. Peter placed some pins in a straight line at equal distance from one another on the floor. The distance between the 1st and the 2nd pin is 5 m. Find the distance between the 1st and the 6th pin.

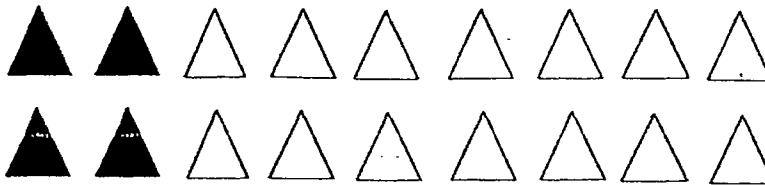


m

(Go on to the next page)

30. How many more triangles must be shaded so that the ratio of the number of unshaded triangles to the total number of triangles is 1 : 3?

Do not write
in this space.



Ans: _____

Total marks for questions 26 to 30

END OF BOOKLET B
END OF PAPER 1



CATHOLIC HIGH SCHOOL
MID-YEAR EXAMINATION 2014
MATHEMATICS
PRIMARY 5
PAPER 2

Name : _____ ()

Class: Primary 5 _____

Date: 20 May 2014

Total Time: 1 h 40 min

Parent's Signature: _____

INSTRUCTIONS TO CANDIDATES

Paper 1 Booklet A	20
Paper 1 Booklet B	20
Paper 2	60
Total Marks	100

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.

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.

(10 marks)

Do not write
in this space.

1. Susie is twice as heavy as Joan. Mary weighs $\frac{1}{3}$ of Joan's weight. The 3 girls weigh 105 kg. How heavy is Mary?

Ans: _____ kg

2. The ratio of the number of blue beads to the number of red beads on a chain is 3:2. How many blue beads are there if there are 140 red beads?

Ans: _____

3. Ken had 250 bottle caps. He gave $\frac{2}{5}$ of the bottle caps to his neighbour.
How many bottle caps did he have left?

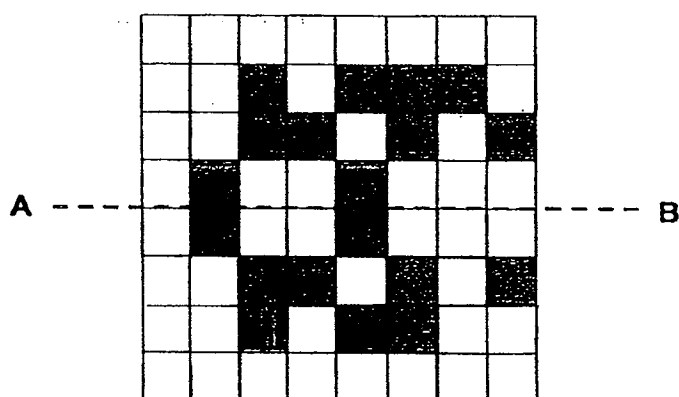
Do not write
in this space.

Ans: _____

4. Jia Wei bought 1500 g of strawberries at \$1.55 per 100 g. How much did he pay for the strawberries?

Ans: \$ _____

5. The dotted line AB is a line of symmetry.
Shade 2 squares to form a symmetric figure.



Do not write
in this space.

(Go on to the next page)

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

Do not write
in this space.

6. At a carnival, $\frac{1}{3}$ of the people are children and $\frac{1}{9}$ of the people are men. The rest are women. There are 400 women. How many people are there at the carnival?

Ans: _____ [3]

(Go on to the next page)

7. A total of 300 files and notebooks were given to some children. Each child received 3 files and 2 notebooks. How many files were there?

Do not write
in this space.

Ans: _____ [3]

(Go on to the next page)

8. Amy and Benny had 615 stickers. Benny and Charles had 318 stickers. Amy had 4 times as many stickers as Charles. How many stickers did Charles have?

Do not write
in this space.

Ans: _____ [3]

☐

(Go on to the next page)

9. Catherine had three as much money as Andy at first. After Catherine gave Andy \$450, Andy had 7 times as much money as Catherine. How much money did Catherine have at first?

Do not write
in this space.

Ans: _____ [3]

(Go on to the next page)

10. Alan and Belinda had 540 cards at first. After Alan sold 80 cards and Belinda bought 20 more cards, each of them had the same number of cards left. How many cards did Alan have at first?

Do not write
in this space.

Ans: _____ [3]

(Go on to the next page)

11. Linda spent \$500 of her salary on transport. She spent $\frac{4}{7}$ of her remaining money on food. If she had $\frac{1}{3}$ of her salary left, how much was her salary?

Do not write
in this space.

Ans: _____ [4]

(Go on to the next page)

12. The table shows the charges for bicycle rental.

Do not write
in this space.

BICYCLE FOR RENTAL	
Charges for the first bicycle :	
For first hour	\$6
For every additional $\frac{1}{2}$ hour	\$2
Charges for the second bicycle onwards	Half the charges for the first bicycle.

Larry rented 2 bicycles at the same time and paid a total of \$24. What is the maximum number of hours Larry rented the bicycles for?

Ans: _____ [4]

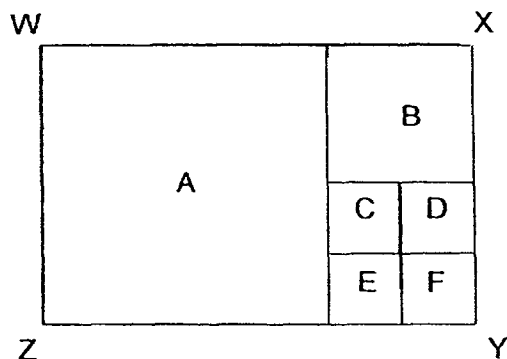
13. Melvin has 155 stamps more than Danny. Edward has thrice the total number of stamps that Melvin and Danny have. The 3 boys have 2780 stamps altogether. How many stamps does Melvin have?

Do not write
in this space.

Ans: _____ [4]

(Go on to the next page)

14. The rectangular figure WXYZ is made up of 6 squares, A, B, C, D, E and F. Squares C, D, E and F are identical. The perimeter of square B is 64 cm. Express the area of square F as a fraction of the area of square A. Leave your answer in the simplest form.



Do not write
in this space.

Ans: _____ [4]

(Go on to the next page)

15. At a fruit stall, the apples were sold at \$0.50 each.
Mangoes were sold at \$2 each.
Queenie bought a total of 35 mangoes and apples for \$25.
How many apples did she buy?

Do not write
in this space.

Ans: _____ [4]

(Go on to the next page)

16. A group of children shared a bag of sweets. Every boy was given 3 sweets and every girl was given 4 sweets. The ratio of the number of boys to the number of girls was 1 : 2. There were 748 sweets in the bag. How many children were there in the group?

Do not write
in this space.

Ans: _____ [5]

(Go on to the next page)

17. Nathan and Owen were given a box of chocolates. Nathan took $\frac{1}{4}$ of the chocolates and 5 more pieces of chocolates from the box. Owen took $\frac{1}{5}$ of the remaining chocolates and 4 more pieces of chocolates from the box. There were 28 pieces of chocolates left. How many pieces of chocolates were in the box at first?

Do not write
in this space.

Ans:

[5]

(Go on to the next page)

18. Gerald bought an equal number of cupcakes and tarts for a party. The cupcakes were bought at 7 for \$20 and the tarts were bought at 5 for \$30. He paid \$550 more for the tarts than for the cupcakes. How much did Gerald pay for the cupcakes and tarts altogether?

Do not write
in this space.

Ans.: _____ [5]

End of Paper 2

EXAMS PAPER 2014

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

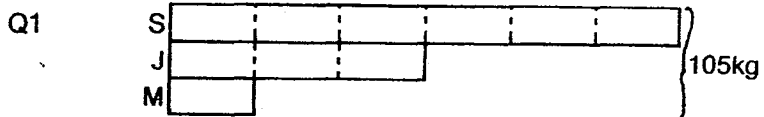
PAPER 1 BOOKLET A

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

BOOKLET B

Q16 1789035
Q17 $3\frac{3}{4}$
Q18 27000
Q19 26
Q20 $3\frac{5}{12}$
Q21 20365
Q22 672
Q23 4.25
Q24 12000 cards
Q25 7:10
Q26 1.67
Q27 $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}$
Q28 72
Q29 25
Q30 8

PAPER 2



M → 1U

$$\rightarrow 105 + 10 = 10.5$$

Mary is 10.5kg.

Ans: 10.5kg

Q2 2u → 140

$$1U \rightarrow 40 : 2 = 70$$

$$3U \rightarrow 70 \times 3 = 210$$

There are 210 blue beads.

Ans: 210 blue beads

Q3 Total $\rightarrow 250$

$$\frac{2}{5}\text{Total} \rightarrow \frac{2}{5} \times 250 = 100$$

$$\text{left} \rightarrow 250 - 100 = 150$$

He had 150 bottle caps left.

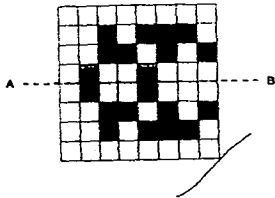
Ans: 150 bottle caps

Q4 $1500g \div 100g = 15$

$$15 \times \$1.55 = \$23.25$$

Ans: \$23.25

Q5



Q6 $5u \rightarrow 400$

$$1u \rightarrow 400 \div 5 = 80$$

$$\text{Total} \rightarrow 9u$$

$$\rightarrow 80 \times 9 = 720$$

There were 720 people at the carnival.

Ans: 720 people

Q7 1 child $\rightarrow 3 + 2 = 5$

$$\text{no of children} \rightarrow 300 \div 5 = 60$$

$$\text{no of files} \rightarrow 60 \times 3 = 180$$

There are 180 files.

Ans: 180 files

Q8 Amy $\rightarrow 4u$

$$\text{Charles} \rightarrow 1u$$

$$A + B = 615$$

$$C + B = 318$$

$$3u \rightarrow 615 - 318 = 297$$

$$1u \rightarrow 297 \div 3 = 99$$

Charles had 99 stickers.

Ans: 99

Q9 At first In the end

$$C:A \quad C:A$$

$$3:1 \quad 1:7$$

$$\text{Total} \rightarrow 4u \quad \text{Total} \rightarrow 8u$$

$$\downarrow \quad \downarrow$$

$$C:A \quad C:A$$

$$6:2 \quad 1:7$$

$$\text{Total} \rightarrow 8u \quad \text{Total} \rightarrow 8u$$

$$6u - 1u = 5u$$

$$5u \rightarrow \$450$$

$$1u \rightarrow \$450 \div 5 = \$90$$

$$C \text{ at first} \rightarrow 6u$$

$$\rightarrow \$90 \times 6 = \$540$$

Catherine had \$540 at first.

Ans: \$540

Q10

A	1u	20	-80
B	1u	$\times 20$	

$$\left. \vphantom{\begin{matrix} A \\ B \end{matrix}} \right\} 540 + 20 = 80$$

$$540 + 20 = 560$$

$$2u \rightarrow 560 - 120 = 440$$

$$1u \rightarrow 440 \div 2 = 220$$

$$A \text{ at first} \rightarrow 220 + 100 = 320$$

Alan had 320 cards at first.

Ans: 320 cards

Q11

Salary \rightarrow \$500 (transport)

\searrow remaining $\rightarrow \frac{4}{7}$ (food) $\left. \vphantom{\frac{4}{7}} \right\} \frac{2}{3} s$

$\searrow \frac{3}{7}$ (left) $\left. \vphantom{\frac{3}{7}} \right\} \frac{1}{3} s$

$$3u \rightarrow \frac{1}{3}s$$

$$6u \rightarrow \frac{2}{3}s$$

$$6u - 4u = 2u$$

$$2u \rightarrow \$500 \text{ (transport)}$$

$$1u \rightarrow \$500 \div 2 = \$250$$

$$\text{Total } s \rightarrow 9u \rightarrow \$250 \times 9 = \$2250$$

Her total salary is \$2250.

Ans: \$2250

Q12

1st bike $\xrightarrow{\$6} \xrightarrow{\$2} \xrightarrow{\$2} \xrightarrow{\$2} \xrightarrow{\$2} \xrightarrow{\$2}$ $\left. \vphantom{\$6} \right\} \16

2nd bike $\xrightarrow{\$1} \xrightarrow{\$1} \xrightarrow{\$1} \xrightarrow{\$1} \xrightarrow{\$1} \xrightarrow{\$1}$ $\left. \vphantom{\$1} \right\} \6

Larry rented the bicycles for $3\frac{1}{2}$ hours.

$\left. \vphantom{\begin{matrix} 1st \\ 2nd \end{matrix}} \right\} \24

Ans: $3\frac{1}{2}$ hours

Q13

$$8u \rightarrow 2780 - (155 \times 4) = 2160$$

$$1u \rightarrow 2160 \div 8 = 270$$

$$M \rightarrow 270 + 155 = 425$$

Melvin has 425 stamps.

Ans: 425 stamps

Q14

$$P \text{ of } B \rightarrow 64 \text{ cm}$$

$$L \text{ of } B \rightarrow 64 \div 4 = 16 \text{ cm}$$

$$L \text{ of } F \rightarrow 16 \div 2 = 8 \text{ cm}$$

$$A \text{ of } F \rightarrow 8 \times 8 = 64 \text{ cm}^2$$

$$L \text{ of } A \rightarrow 16 \text{ cm} \times 2 = 32 \text{ cm}$$

$$A \text{ of } A \rightarrow 32 \text{ cm} \times 32 \text{ cm} = 1024 \text{ cm}^2$$

$$A \text{ of } F / A \text{ of } A \rightarrow 64 / 1024 \rightarrow 1/16$$

The fraction is $1/16$

Ans: $1/16$

- Q15 1A→\$0.50
1M→\$2

Guess and check (check)

Mangoes	Apples	Total	✓/X
17 × 0.2 = 3.4	16 × 0.5 = 8	3.4 + 8 = 11.4	X
15 × 0.2 = 3.0	20 × 0.5 = 10	3.0 + 10 = 13.0	X
11 × 0.2 = 2.2	24 × 0.5 = 12	2.2 + 12 = 14.2	X
9 × 0.2 = 1.8	26 × 0.5 = 13	1.8 + 13 = 14.8	X
7 × 0.2 = 1.4	28 × 0.5 = 14	1.4 + 14 = 15.4	X
5 × 0.2 = 1.0	30 × 0.5 = 15	1.0 + 15 = 16.0	✓

no of apples → 30

She bought 30 apples.

Ans: 30 apples

- Q16 1 boy → 3 sweets

1 girl → 4 sweets

no of children in 1 group

B:G

1:2

1 group → 1 boys + 2 girls

→ 3 sweets + 8 sweets = 11 sweets

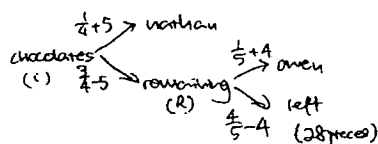
no of groups → 748 sweets ÷ 11 sweets = 68 groups

Total children → 68 groups × (1+2) = 204 children

There were 204 children.

Ans: 204 children

- Q17



$$\text{left} \rightarrow 4/5R - 4 = 28$$

$$4/5R \rightarrow 28 + 4 = 32$$

$$1/5R \rightarrow 32 \div 4 = 8$$

$$5/5R \rightarrow 8 \times 5 = 40$$

$$40 \rightarrow 3/4C - 5$$

$$3/4C \rightarrow 40 + 5 = 45$$

$$1/4C \rightarrow 45 \div 3 = 15$$

$$4/4C \rightarrow 15 \times 4 = 60$$

There were 60 pieces of chocolate.

Ans: 60 pieces

- Q18 7c → \$20

5T → \$30

1T → \$30 ÷ 5 = \$6

no of cupcakes	no of tarts	Diff	x / ✓
7→\$20	7→\$42	\$22	x
70→\$200	70→\$420	\$220	x
147→\$420	147→\$882	\$462	x
175→\$500	175→\$1050	\$550	✓

\$500+\$1050=\$1550