



CATHOLIC HIGH SCHOOL
END-OF-YEAR EXAMINATION (2020)
PRIMARY FIVE
MATHEMATICS
PAPER 1
(BOOKLET A)

Name : _____ ()

Class : Primary 5 _____

Date : 2 November 2020

Total time for Booklet A and B : 1 hour

15 questions

20 marks

Parent's signature : _____

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 14 printed pages excluding the cover 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. Which digit in 53.42 is in the tenths place?

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

2. Which one of the following is the same as 3920 cm?

- (1) 3 m 92 cm
 - (2) 3 m 920 cm
 - (3) 39 m 20 cm
 - (4) 39 m 200 cm
-

3. What is the value of $6240 \div 60$?

- (1) 104
 - (2) 140
 - (3) 1004
 - (4) 1040
-

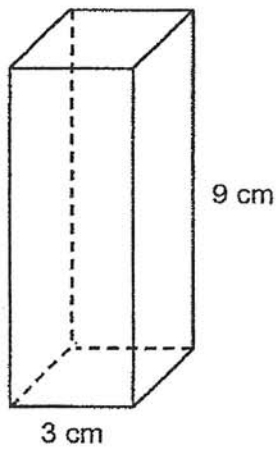
4. There are 21 apples, 15 oranges and 12 pears in a box. What is the ratio of the number of apples to the number of oranges to the number of pears? Express your answer in its simplest form.

- (1) 4 : 5 : 7
 - (2) 7 : 5 : 4
 - (3) 12 : 15 : 21
 - (4) 21 : 15 : 12
-

5. Which of the following numbers is the smallest?

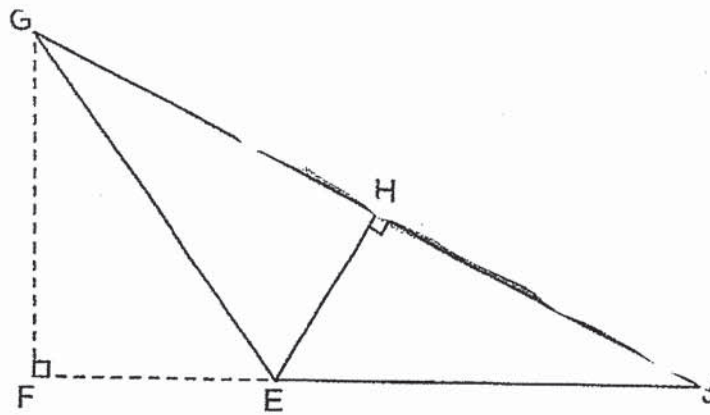
- (1) 0.68
 - (2) 0.86
 - (3) 0.068
 - (4) 0.086
-

6. A solid cuboid of height 9 cm has a square base of side 3 cm.
What is its volume?



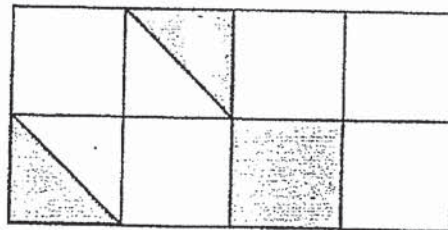
- (1) 27 cm³
 - (2) 36 cm³
 - (3) 54 cm³
 - (4) 81 cm³
-

7. In the figure below, EGJ is a triangle.
Given that GHJ is the base of triangle EGJ, which is the height of triangle EGJ?



- (1) EH
- (2) EJ
- (3) GE
- (4) GF

8. The figure below is made up of identical squares. What fraction of the figure is shaded?



- (1) $\frac{3}{8}$
- (2) $\frac{1}{4}$
- (3) $\frac{4}{11}$
- (4) $\frac{12}{16}$

9. Which of the following is equal to $2\frac{6}{7}$?

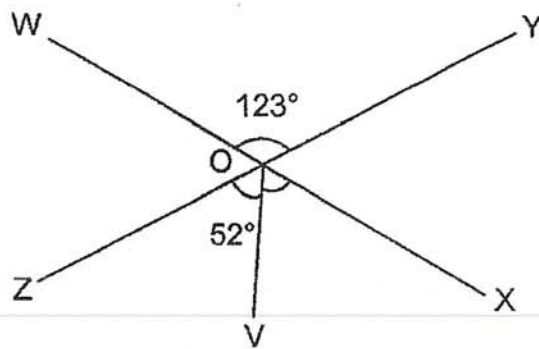
(1) $\frac{12}{7}$

(2) $\frac{19}{7}$

(3) $\frac{20}{7}$

(4) $\frac{26}{7}$

10. In the figure below, WOX and YOZ are straight lines. $\angle WOY = 123^\circ$ and $\angle ZOV = 52^\circ$. Find $\angle VOX$.



(1) 57°

(2) 71°

(3) 128°

(4) 175°

11. Walter is 6 years old now. His father is 27 years older than him. In how many years' time will Walter's father be four times as old as Walter?

- (1) 5
- (2) 9
- (3) 3
- (4) 11

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

$$\frac{2}{3}, \quad \frac{2}{7}, \quad \frac{3}{4}$$

- | | <u>Smallest</u> | | <u>Largest</u> |
|-----|-----------------|-----------------|----------------|
| (1) | $\frac{2}{3}$, | $\frac{3}{4}$, | $\frac{2}{7}$ |
| (2) | $\frac{2}{3}$, | $\frac{2}{7}$, | $\frac{3}{4}$ |
| (3) | $\frac{2}{7}$, | $\frac{3}{4}$, | $\frac{2}{3}$ |
| (4) | $\frac{2}{7}$, | $\frac{2}{3}$, | $\frac{3}{4}$ |

13. Joseph had \$300. He spent 40% of his money and saved the rest. How much did he save?

- (1) \$60
- (2) \$120
- (3) \$180
- (4) \$260

14. Jade bought 8 m of string. She used $\frac{1}{4}$ of it, for some masks and $4\frac{1}{2}$ m for her project. How much string was left?

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

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

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

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

15. Which of the following statements are properties of a rhombus?

A	All sides are equal.
B	All angles add up to 180° .
C	Only 1 pair of sides is parallel.
D	Each pair of angles between two parallel sides adds up to 180° .

- (1) A and B
(2) A and D
(3) B and C
(4) B and D

END OF BOOKLET A



CATHOLIC HIGH SCHOOL
END-OF-YEAR EXAMINATION (2020)
PRIMARY FIVE
MATHEMATICS
PAPER 1
(BOOKLET B)

Name : _____ ()

Class : Primary 5 _____

Date : 2 November 2020

Total time for Booklet A and B : 1 hour

15 questions

25 marks

Parent's signature : _____

BOOKLET A	20
BOOKLET B	25
Total Marks	45

INSTRUCTIONS TO CANDIDATES

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Write your answers in this booklet.

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Booklet A and B consist of 14 printed pages excluding the cover 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. (5 marks)

Do not write
in this space

16. Write two million, three hundred and four thousand and five in numerals.

Ans: _____

17. Find the value of $36 - 4 \times 5 + 7$

Ans: _____

18. Express 8% as a decimal.

Ans: _____

(Go on to the next page)

19. Figure A and B are made up of 1-cm cubes.

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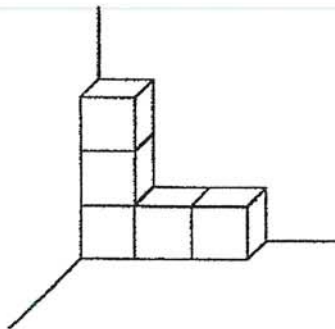


Figure A

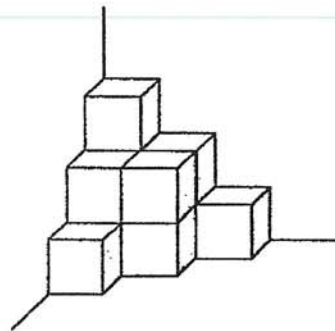


Figure B

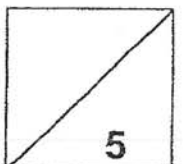
How many 1-cm cubes must be added to Figure A to form Figure B?

Ans: _____

20. Cindy had $\frac{5}{8}$ kg of sugar. She used $\frac{1}{3}$ kg of sugar to bake some tarts.
How much sugar was used to bake the tarts?

Ans: _____ kg

Total marks for questions 16 to 20



Questions 21 to 30 carry 2 marks each. Show your working clearly 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)

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21. Henry spent $\frac{4}{9}$ of his money on books. He had \$64 left.
How much money did he have at first?

Ans: \$ _____

22. A ribbon was cut into 2 pieces in the ratio 3 : 7. The difference in length between the 2 pieces was 84 cm. What was the length of the shorter piece of ribbon?

Ans: _____ cm

23. A rope 9 m long is cut into 6 equal pieces. What is the length of each piece? Give your answer as a mixed number in the simplest form.

Do not write
in this space

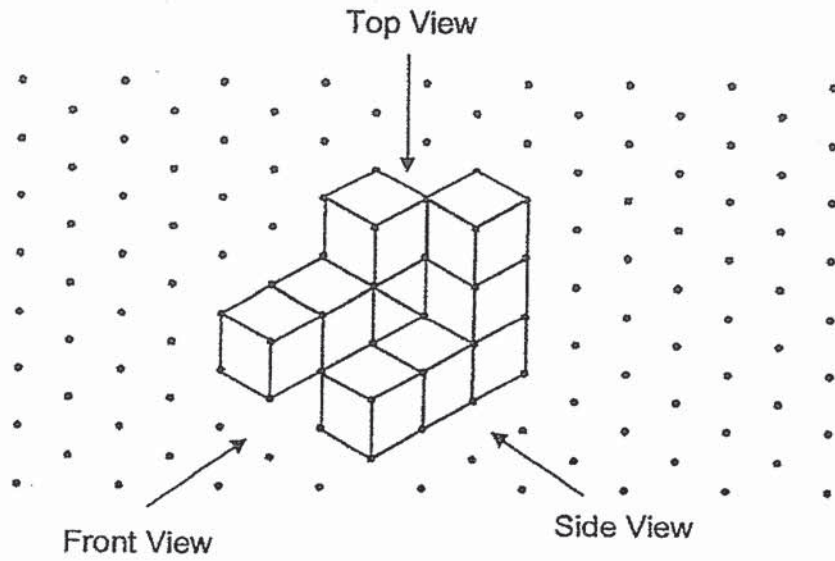
Ans: _____ m

24. Mrs Lim bought 300 identical sets of colour pencils at \$1.80 per set. What was the total cost of all the sets of colour pencils?

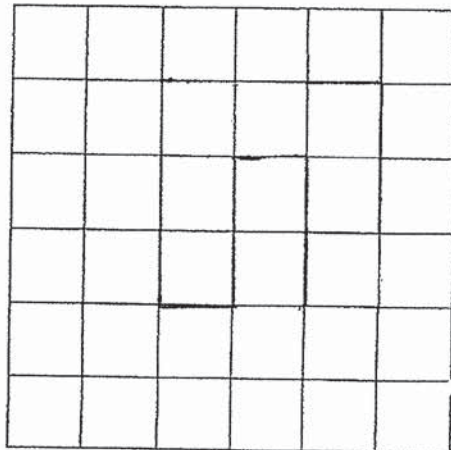
Ans: \$ _____

25. The following solid is made up of 10 cubes. Draw the top view and the side view of the solid.

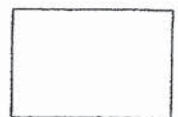
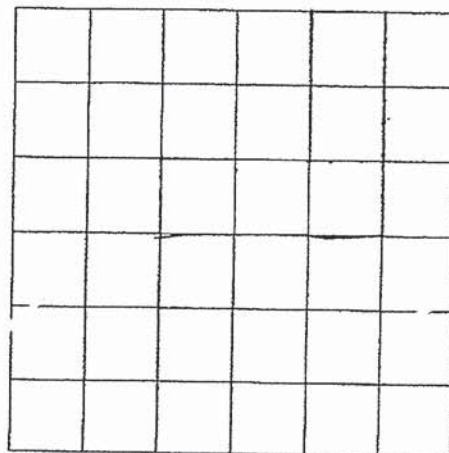
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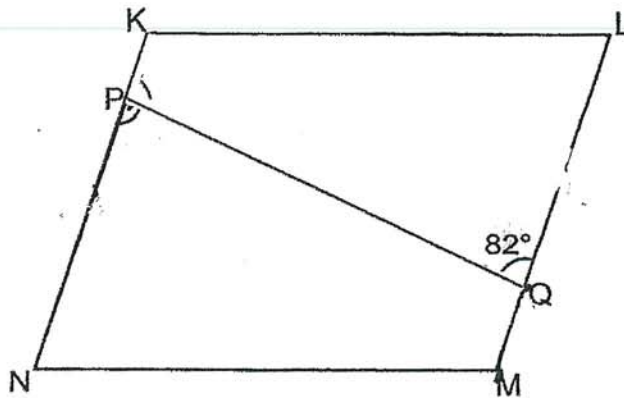
Top View



Side View



26. KLMN is a parallelogram. $\angle LQP = 82^\circ$. Find $\angle KPQ$.



Do not write
in this space

Ans: _____ °

27. The price of a bag before GST was \$1100. What was the price of the bag including 7% GST?

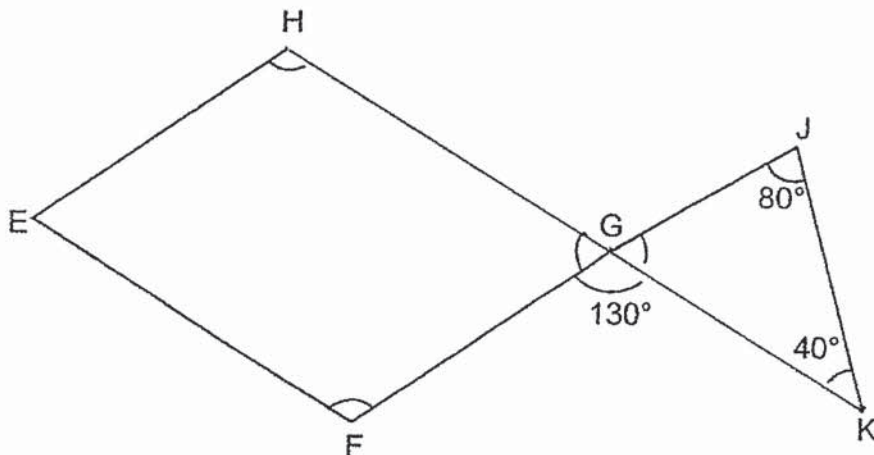
Ans: \$ _____

28. Thomas had 16 more stickers than Zack at first. Thomas gave 23 of his stickers to Zack. In the end, Zack had 4 times as many stickers as Thomas. How many stickers did Thomas have in the end?

Do not write in this space

Ans: _____

29. The figure below is made up of a parallelogram and a triangle. HGK is a straight line. $\angle FGK = 130^\circ$, $\angle GJK = 80^\circ$ and $\angle JKG = 40^\circ$.



The figure above is not drawn to scale. Each of the statements below is either true, false or not possible to tell from the information given. For each statement, put a (✓) to indicate your answer.

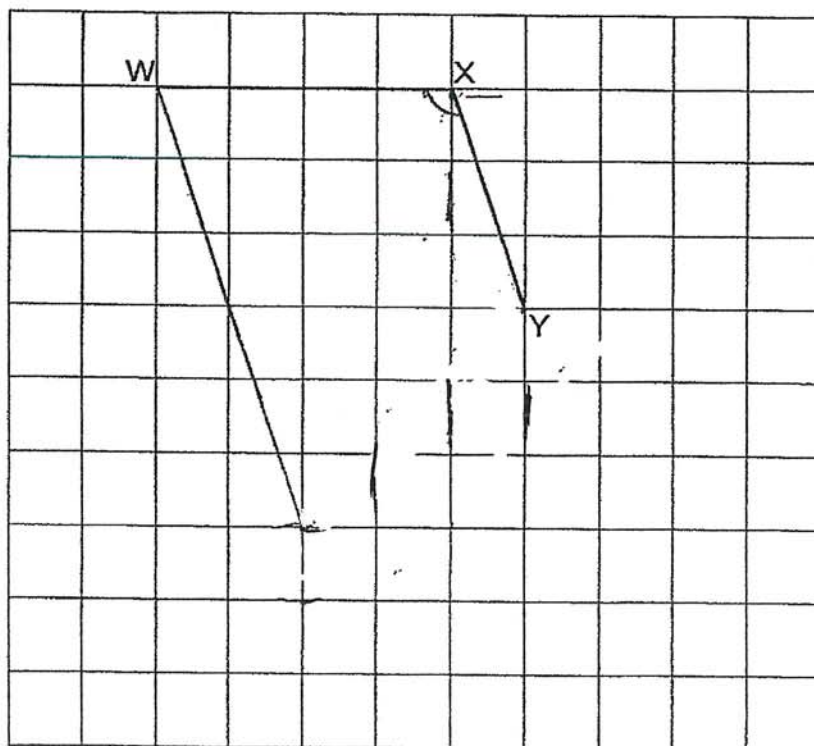
Statement	True	False	Not possible to tell
(a) $\angle HGF = \angle JGK$			
(b) $\angle EFG = \angle EHG$			

30. In the square grid below, WX and XY form two sides of Trapezium WXYZ.

Do not write
in this space

(a) Measure $\angle WXY$.

(b) Complete the drawing of Trapezium WXYZ, where WZ is twice that of XY and WZ is parallel to XY.

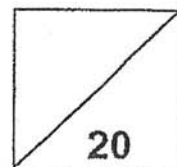


Ans: (a) _____°



Total marks for questions 21 to 30

END OF BOOKLET B
END OF PAPER 1





CATHOLIC HIGH SCHOOL
END-OF-YEAR EXAMINATION (2020)
PRIMARY FIVE
MATHEMATICS
PAPER 2

Name : _____ ()

Class : Primary 5 _____

Date : 2 November 2020

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

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Answer all questions.

Write your answers in this booklet.

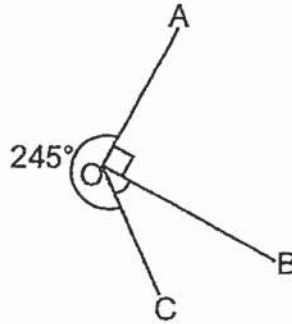
The use of an approved calculator is expected, where appropriate.

This booklet consists of 15 printed pages excluding the cover page.

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. (10 marks)

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1. In the figure below, all the lines meet at Point O. $\angle AOC = 245^\circ$. Find $\angle BOC$.



Ans: _____°

2. James had \$93 500 in his bank account. The bank paid 2% interest at the end of each year. How much would James have in his bank account at the end of one year?

Ans: \$ _____

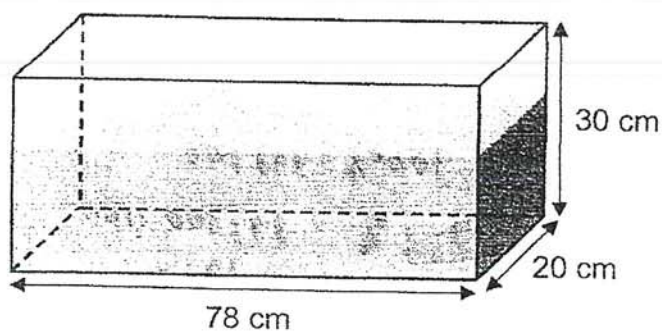
3. Pins were used to fix a string onto a board. Each pin was placed 30 cm apart from the next one. One pin was placed at the start point and one at the end point of the string. A total of 15 pins were used. What was the length of the string?

Do not write
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Ans: _____ cm

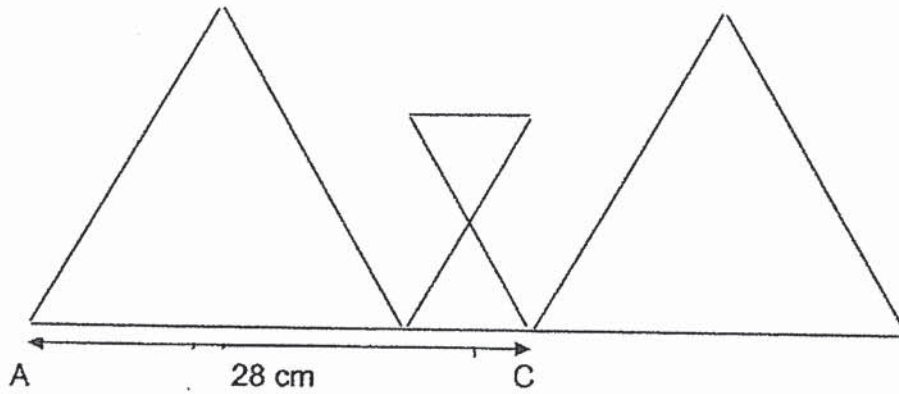
4. A rectangular container measuring 78 cm by 20 cm by 30 cm is filled with water to $\frac{2}{3}$ of its height. Find the volume of water needed to fill the container to the brim.



Ans: _____ cm³

5. A piece of wire is bent to form 2 small identical equilateral triangles and 2 big identical equilateral triangles as shown in the figure below. There is no wire left over. The length of AC is 28 cm. Find the length of the piece of wire.

Do not write
in this space



Ans: _____ cm

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. (45 marks)

Do not write in this space

6. A rectangular piece of paper shown in Figure 1 has a perimeter of 44 cm. 6 such rectangular pieces of paper are arranged to form the shaded area as shown in Figure 2. Find the shaded area in Figure 2.

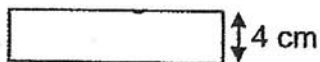


Figure 1

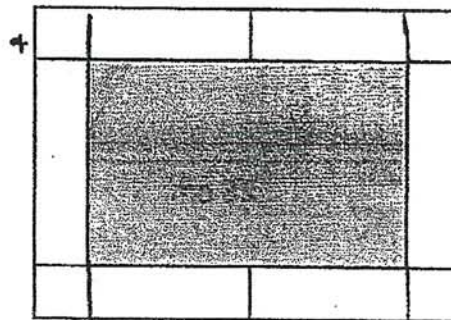
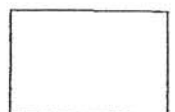


Figure 2

Ans: _____ [3]



7. Sarah and Tessa had the same number of cupcakes at first. Sarah sold 133 cupcakes and Tessa sold 249 cupcakes. The number of cupcakes Sarah had left was 3 times that of what Tessa had left. How many cupcakes did each of them have at first?

Do not write
in this space

Ans: _____ [3]

8. Mrs Lee bought apple tarts, peach tarts, curry buns and butter buns at a shop. The ratio of the number of tarts to the number of buns was 4 : 9. There were twice as many curry buns as butter buns. The ratio of the number of apple tarts to the number of peach tarts was 5 : 7. There were 117 more curry buns than apple tarts. How many tarts and buns did Mrs Lee buy altogether?

Do not write
in this space

Ans: _____ [3]



9. John packed 359 cups into large and small boxes. In a large box, he packed 8 cups. In a small box, he packed 5 cups. All the boxes were full and there was no cup left over. He used a total of 58 boxes for packing all the cups. How many large boxes did he use?

Do not write
in this space

Ans: _____ [3]

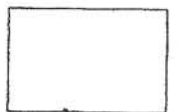
7

(Go on to the next page)

10. Mary Had \$486 more than Rachel at first. After each girl spent the same amount of money at a shop, Rachel had $\frac{3}{5}$ of her money left while Mary had $\frac{6}{7}$ of her money left. How much money did they have left altogether?

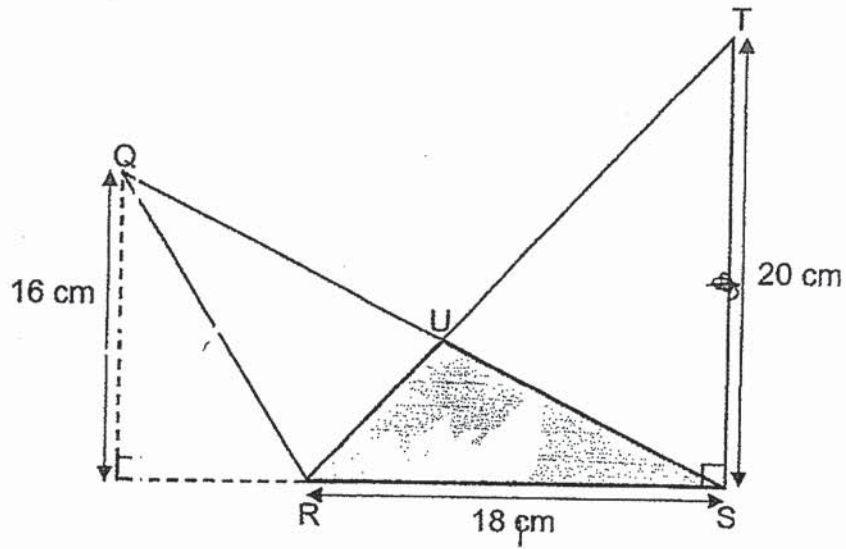
Do not write
in this space

Ans: _____ [3]



11. Figure QRSTU has an area of 253 cm^2 . QRS and RST are triangles. Find the area of the shaded part.

Do not write
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Ans: _____ [4]



9

(Go on to the next page)

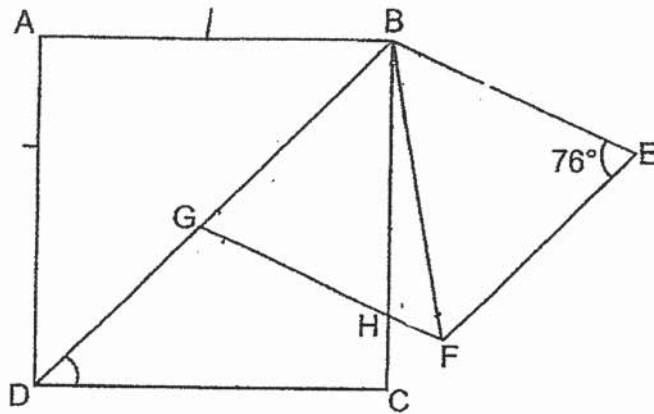
12. Tony spent $\frac{1}{4}$ of his money on 8 notebooks and 40 files. The cost of 4 files was the same as the cost of a notebook. He bought more notebooks with $\frac{1}{2}$ of his remaining money. How many notebooks did Tony buy altogether?

Do not write
in this space

Ans: _____ [4]



13. The diagram below shows a square ABCD and a rhombus BEFG. BGD is a straight line. $\angle BEF = 76^\circ$.



- (a) Find $\angle BDC$.
(b) Find $\angle HBF$.

Do not write
in this space

Ans: (a) _____ [1]

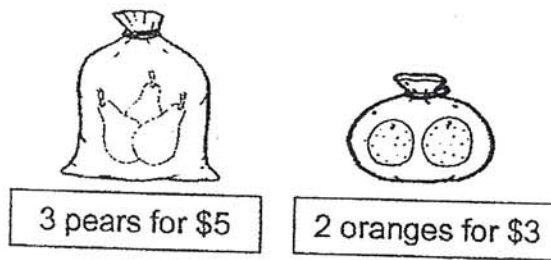
(b) _____ [3]



14. At a fruit shop, pears were sold in packets of 3 for \$5 while oranges were sold in packets of 2 for \$3. Malek bought thrice as many pears as oranges. He paid \$221 for the fruits.

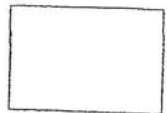
Do not write
in this space

- (a) How many fruits did he buy altogether?
(b) How much more did he spend on pears than oranges?



Ans: (a) _____ [3]

(b) _____ [2]



15. Scott bought 8 adult tickets to an amusement park. Terry bought 3 adult tickets and 7 child tickets to the amusement park. Scott spent \$43.50 more than Terry. Each child ticket cost \$11.50.

Do not write
in this space

- (a) Find the total cost of 7 child tickets.
(b) Find the cost of an adult ticket.

Ans: (a) _____ [1]

(b) _____ [3]

16. Identical triangles and identical squares are used to form a pattern as shown below.

Do not write
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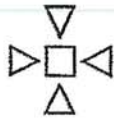


Figure 1

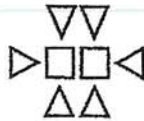


Figure 2

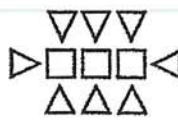


Figure 3

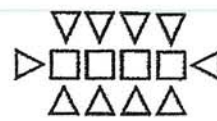


Figure 4

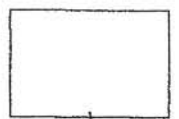
The table shows the number of triangles and squares for the first four figures.

Figure Number	Number of triangles	Number of squares	Total number of triangles and squares
1	4	1	5
2	6	2	8
3	8	3	11
4	10	4	14
5		5	

[2]

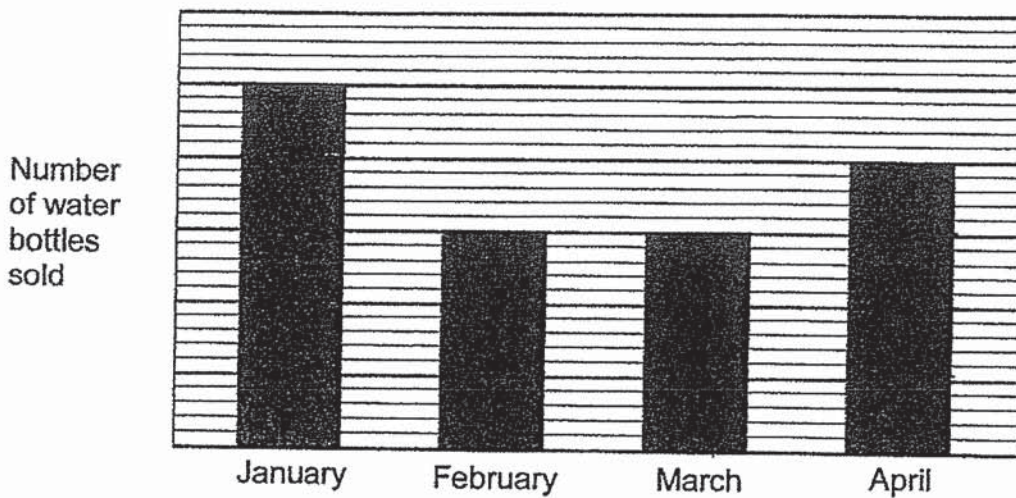
- (a) Complete the table for Figure 5.
- (b) A figure in the pattern has 58 squares. What is the total number of triangles and squares in that pattern?

Ans. (b) _____ [2]



17. A shopkeeper drew a bar graph to show the number of water bottles sold in his shop from January to April. However, he had forgotten to write the numbers on the scales.

Do not write
in this space



- (a) From January to April, what percentage of the total number of water bottles sold was sold in February?
- (b) \$6840 was collected from the sale of water bottles from January to April. The price of each water bottle sold from January to April was different from the ones sold in May. The shopkeeper sold 38 water bottles in May and collected the same amount of money as he did in April. How much was each water bottle sold in May?

Ans: (a) _____ [2]

(b) _____ [3]

END OF PAPER 2

ANSWER KEY

YEAR : 2020
LEVEL : PRIMARY 5
SCHOOL : CATHOLIC HIGH
SUBJECT : MATHEMATICS
TERM : SA2

BOOKLET A

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

BOOKLET B

Q16. 2304005

Q17. $(36-20)+7$
 $= 16+7=23$

Q18. $8\% = \frac{8}{100} = 0.08$

Q19. $11 - 5 = 6$

Q20. $\frac{5}{8} = \frac{15}{24} - \frac{8}{24} = \frac{7}{24}$ KG

Q21. $\frac{5}{9} = \$64$

$\frac{1}{9} = \$64 \div 5 = \12.80

$\frac{9}{9} = \$12.80 \times 9 = \115.20

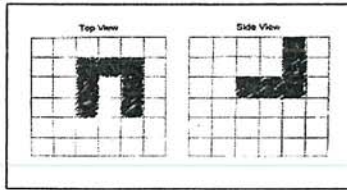
Q22. $1u = 84 \div 4 = 21$

$3u = 3 \times 21 = 63\text{cm}$

Q23. $9m \div 6 = \frac{9}{6} = 1\frac{3}{6} = 1\frac{1}{2}$

Q24. $300 \text{ set} = 300 \times \1.60
 $= 3 \times 100 \times \$1.80 = \540

Q25.



Q26. $180^\circ - 82^\circ = 98^\circ$

Q27. $\$1100 \div 100 = \11

$\$11 \times 107\% = \1177

Q28. $23 - 16 = 7$

$7 + 16 + 7 = 30$

$30 = u$

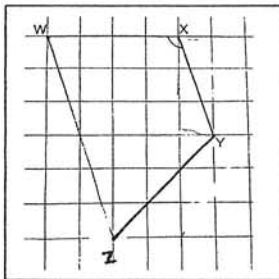
$1u = 30 : 3 = 10$

Q29 a) False

b) True

Q30 a) 108°C

b)



PAPER 2

Q1. $\angle BOC = 360^\circ - 245^\circ - 90^\circ = 25^\circ$

Q2. $100\% = \$93500$

$1\% = \$93500 \div 100 = \935

$2\% = \$935 \times 2 = \1870

$\text{EOY} = \$93500 + \$1870 = \$95370$

Q3. $15p = 14$

$14 \times 30 = 420\text{cm}$

Q4. $\text{Vol} = \frac{1}{3} \times 78 \times 20 \times 30 = 15600\text{cm}^3$

Q5. 28×6

$= 168$

Q6. $2L = 44 - 4 - 4 = 36$

$$1L = 36 \div 2 = 18$$

$$18 - 14 = 4$$

$$L = 14 + 4 = 28$$

$$B = 18$$

$$\text{Shaded area} = 28 \times 18 = 504\text{cm}^2$$

Q7. $2u = 249 - 133 = 116$

$$1u = 116 \div 2 = 58$$

$$58 + 249 = 307$$

Q8. $18u - 5u = 13u$

$$13u = 117$$

$$1u = 117 \div 13 = 9$$

$$39u = 9 \times 39 = 351$$

Q9. $58 \times 5 = 290$

$$359 - 290 = 69$$

$$8 - 5 = 3$$

$$69 \div 3 = 23$$

Q10. Rachel Left = $\frac{3}{5}$ Spent = $\frac{2}{5}$ m

$$= \frac{2}{5} \text{ m} = \frac{1}{7} \times \text{m}$$

$$= \frac{2}{14} \text{ m} = \frac{2}{5} \text{ m}$$

$$= 9u = 486$$

$$1u = 486 \div 9 = 54$$

$$\frac{6}{7} \text{ m} = \frac{12}{14} \text{ m (Mary Left)}$$

$$\text{Left} = 3u + 12u = 15u$$

$$15 = 15 \times 54 = 810$$

$$\text{Q11. } \Delta QRS = \frac{1}{2} \times 18 \times 16 = 144$$

$$\text{Area RST} = \frac{1}{2} \times 18 \times 20$$

$$= 180$$

$$253 - 144 = 109$$

$$\text{Shaded} = 180 - 109 = 71\text{cm}^2$$

$$\text{Q12. } 40F = 40 \div 4 = 10NB$$

$$2u = 8NB + 10NB = 18NB$$

$$1u = 18 \div 2 = 9$$

$$3u = 3 \times 9u = 27u$$

$$\frac{1}{4} = 32u + 40u = 72u$$

$$\frac{3}{4} = 72 \times 3 = 216$$

$$\frac{3}{6} = 216 \div 2 = 108$$

$$108 \div 4 = 27$$

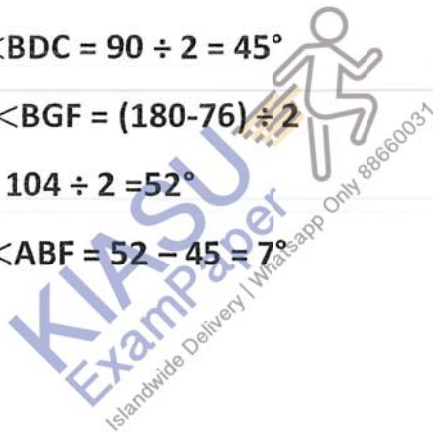
$$27 + 8 = 35$$

$$\text{Q13 a) } \angle BDC = 90 \div 2 = 45^\circ$$

$$\text{b) } \angle BGF = (180 - 76) \div 2$$

$$= 104 \div 2 = 52^\circ$$

$$\angle ABF = 52 - 45 = 7^\circ$$



Q14 a) $1 \text{ set} + 6p = \$10 + 2 \text{ orange} = \3

$= \$13$

$\$221 \div 13 = \17

$17 \times 6 = 102$

$17 \times 2 = 34$

$102 + 34 = 136$

b) $P = \$17 \times 10 = 170$

$O = \$17 \times 3 = \51

$\$170 - \$51 = \$119$

Q15 a) $\$11.50 \times 7 = \80.50

b) $5A = \$80.50 + \$43.50 = \$124$

$1A = 124 \div 5 = \$24.80$

Q16. $58 = 57 \times 2 = 114 \text{ tri}$

$(a) 12 + 5 = 17$

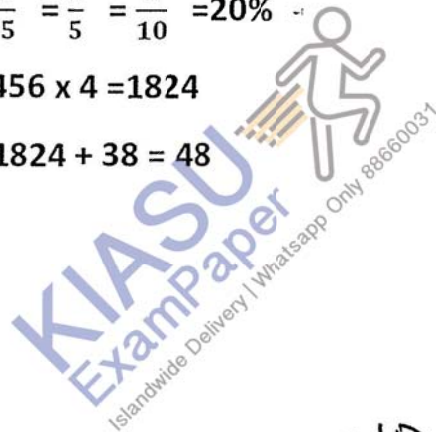
$114 + 4 = 118 \text{ tri}$

$118 + 58 = 176 (b)$

Q17 a) $\frac{15}{75} = \frac{1}{5} = \frac{2}{10} = 20\%$

b) $456 \times 4 = 1824$

$1824 + 38 = 48$



END