26

Name:_____ ( ) 23 August 2016

Class: P 6_____

CATHOLIC HIGH SCHOOL

PRELIMINARY EXAMINATION 2

PRIMARY SIX

MATHEMATICS

PAPER 1

(BOOKLET A)

15 questions

20 marks

Total Time for Booklets A and B: 50 min

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.

This booklet consists of 7 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)

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1. Round off 60.384 to the nearest tenth.

   (1) 60

   (2) 60.3

   (3) 60.4

   (4) 60.38

---

2. Which one of the following numbers is the smallest?

   (1) 0.503

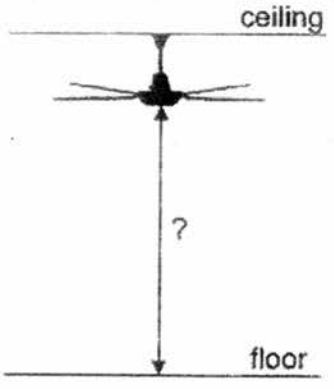
   (2) 0.053

   (3) 0.305

   (4) 0.035

---

3. Which one of the following is most likely to be the height measured vertically from the floor to a ceiling fan in a classroom?



   (1) 25 cm

   (2) 25 m

   (3) 2.5 cm

   (4) 2.5 m

(Go on to the next page)

4. What is the value of 40 ÷ 4000?

(1) 100

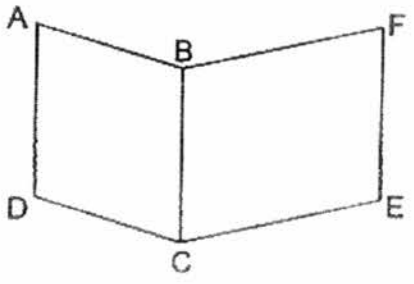
(2) 10

(3) 0.01

(4) 0.001

---

5. In the figure, ABCD and BCEF are parallelograms. Which one of the following pairs of lines is parallel to each other?



(1) AB and BC

(2) AB and EF

(3) AD and DC

(4) AD and EF

---

6. Express 1.6 as a percentage.

(1) 160%

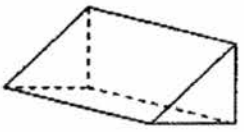
(2) 16%

(3) 0.16%

(4) 0.016%

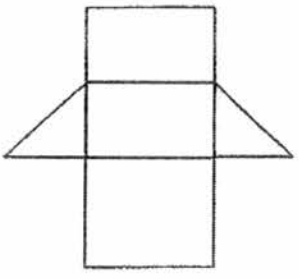
(Go on to the next page)

7. The figure below shows a solid.

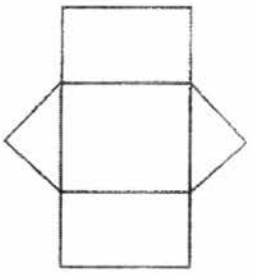


Which one of the following is a net of the solid?

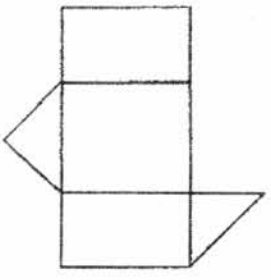
(1)



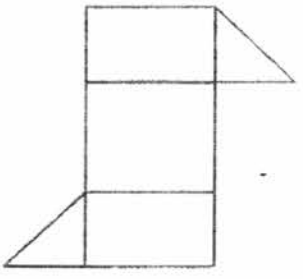
(2)



(3)

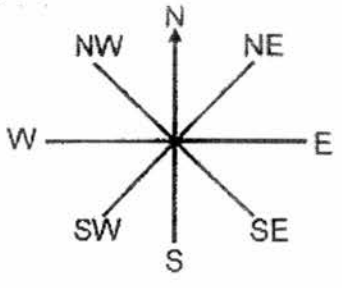


(4)



8. The figure below shows an 8-point compass.

Wendy was facing north-west (NW) at first. She then made a $\frac{3}{4}$ - turn in an anti-clockwise direction. Which direction is she facing now?



(1) NE

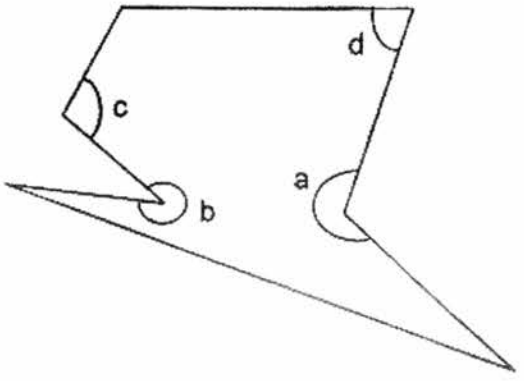
(2) SW

(3) E

(4) S

(Go on to the next page)

9. In the figure below, which angle is more than 180° and less than 270°?



(1) ∠a
(2) ∠b
(3) ∠c
(4) ∠d

---

10. The clock below showed the time Ralph began revising for his test.

He took 130 minutes to complete his revision. Which one of the following shows the time when he completed his revision?

(1)

(2)

(3)

(4)

(Go on to the next page)

11. Which one of the following is nearest to 1?

(1) $\frac{5}{6}$

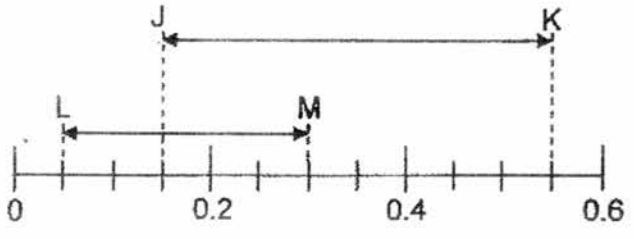
(2) $\frac{6}{7}$

(3) $1\frac{1}{8}$

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

---

12. In the number line below, how much longer is JK than LM?



(1) 0.15

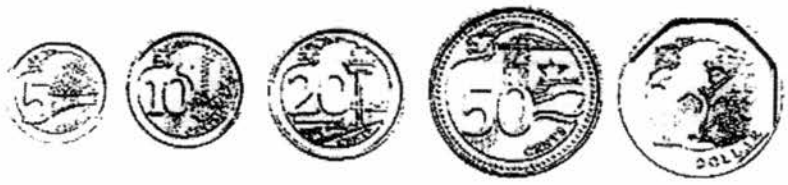
(2) 0.20

(3) 0.25

(4) 0.35

(Go on to the next page)

13. Pauline had only the following coins in her wallet.



She took three coins from her wallet and dropped them into a donation box. Which one of the following could not be the amount donated?

(1) 35 ¢

(2) 80 ¢

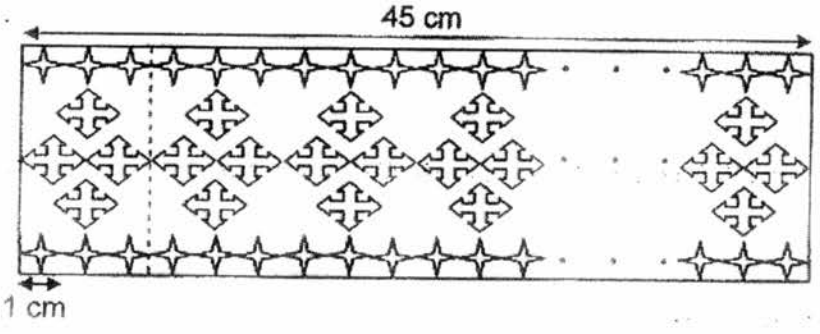
(3) $1.15

(4) $1.65

---

14. A piece of ribbon 45 cm long has identical ✧ and ✣ printed on it. They are printed in a repeated pattern as shown below.

The width of each ✧ is 1 cm long.



How many ✣ are there in the piece of ribbon?

(1) 15

(2) 30

(3) 60

(4) 135

(Go on to the next page)

15. Mr Tan had some stamps. After giving away 48 of them on Monday and $\frac{2}{9}$ of the remainder on Tuesday, he was left with $\frac{1}{3}$ of his stamps. How many stamps did he give away?

(1) 21

(2) 36

(3) 56

(4) 72

END OF BOOKLET A

(Go on to the next page)

Name:_____( ) 23 August 2016

Class: P 6_____

CATHOLIC HIGH SCHOOL

PRELIMINARY EXAMINATION 2

PRIMARY SIX

MATHEMATICS

PAPER 1

(BOOKLET B)

15 questions

20 marks

Total Time for Booklets A and B: 50 min

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.

This booklet consists of 7 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. Find the value of $3 \div 7$.
Give your answer correct to 2 decimal places.

Ans: _____

17. Write down the common factors of 12 and 28.

Ans: _____

18. Find the value of 0.37×80.

Ans: _____

(Go on to the next page)

19. There are 60 bananas. 24 of them are ripe while the rest are rotten. What is the ratio of the number of rotten bananas to the number of ripe bananas? Give your answer in the simplest form.

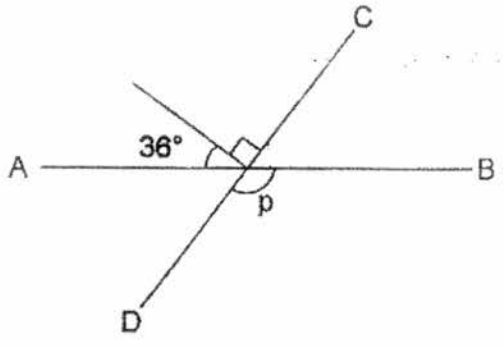
Do not write in this space.

Ans: _____

20. Mrs Tan bought 6 kg of rice. She cooked 200g of rice each day. How many days did the rice last?

Ans: _____

21. In the figure below, AB and CD are straight lines. Find ∠ p.



Ans: _____ °

(Go on to the next page)

22. Find the value of $\frac{5}{6} \div 10$.
Give your answer as a fraction in the simplest form.

Do not write in this space.

Ans: _____

23. The total cost of a cupcake and a pie is $8.50. The cost of the cupcake is $\frac{2}{3}$ the cost of the pie. What is the cost of the cupcake?

Ans: $_____

(Go on to the next page)

24. At a supermarket, a customer is given 5 packets of tissue paper free for every $20 spent. Anne spent $66 at the supermarket. How many packets of tissue paper would she get?

Do not write in this space.

Ans: _____

25. Last year, Ravi's mass was 50 kg. This year, his mass increases by 20%. What is his mass this year?

Ans: _____ kg

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 $\frac{8m}{3} - 5 + m$ when $m = 6$.

Ans: _____

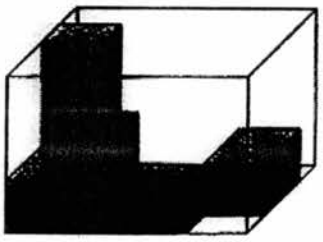
27. Andy had 28 more stamps than Bradley at first. Bradley gave 12 of his stamps to Andy. Andy now has 3 times as many stamps as Bradley. How many stamps did Bradley have at first?

Ans: _____

(Go on to the next page)

28. The figure shows a rectangular glass box partly filled with unit cubes. How many more unit cubes are needed to completely fill the box?

Do not write in this space.



Ans: _____

29. A bag can contain 24 apples or 36 oranges at most. 27 oranges and some apples are put into one such bag. What is the greatest possible number of apples in the bag?

Ans: _____

(Go on to the next page)

Do not write in this space.

30. Figure 1 is a square made up of four identical shapes as shown in Figure 2.

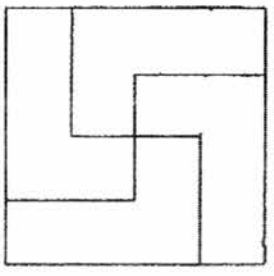


Figure 1

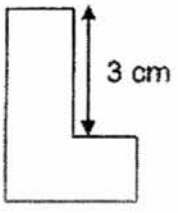


Figure 2

What is the area of the shape in Figure 2?

Ans: _____ cm^2

Total marks for questions 26 to 30

END OF BOOKLET B
END OF PAPER 1

(Go on to the next page)

Name : _____ ( ) 23 August 2016

Class : P 6 _____

CATHOLIC HIGH SCHOOL

PRELIMINARY EXAMINATION 2

PRIMARY SIX

MATHEMATICS

PAPER 2

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

Total Time: 1 h 40 min

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.

Write your answers in this booklet.

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

This booklet consists of 16 printed pages.

Questions 1 to 5 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. (10 marks)

Do not write in this space

1. **In an archery competition, 3 players scored an average of 57 points. The total score of the first and second players was 96. What was the score of the third player?**

Ans: _____

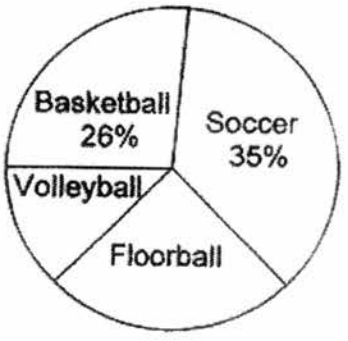
2. Kelvin is 160 cm tall. Danny is y cm taller than Kelvin. Melvyn is 3 cm shorter than Danny. What is Melvyn's height? Give your answer in terms of y in the simplest form.

Ans: _____ cm

Use the information below to answer questions 3 and 4

Do not write in this space.

The pie chart represents the number of participants for each type of sport. Floorball had twice as many participants as volleyball.



3. What percentage of all the participants took part in floorball?

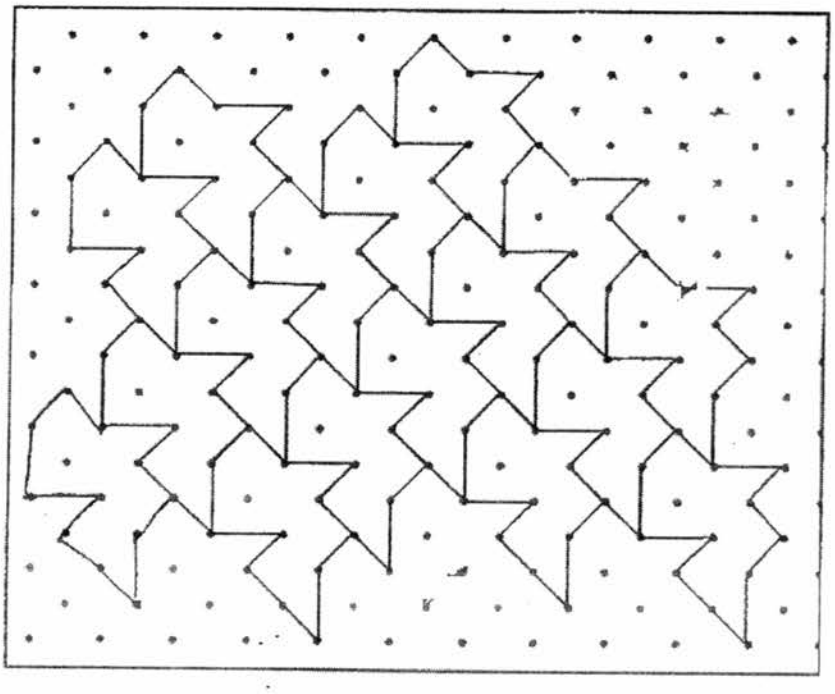
Ans: _____ _____ %

4. There were 36 more participants for soccer than basketball.
What was the total number of participants for all the 4 sports?

Ans: _____

5. The pattern in the box shows part of a tessellation.
Extend the tessellation by drawing two more unit shapes in the space provided in the box.

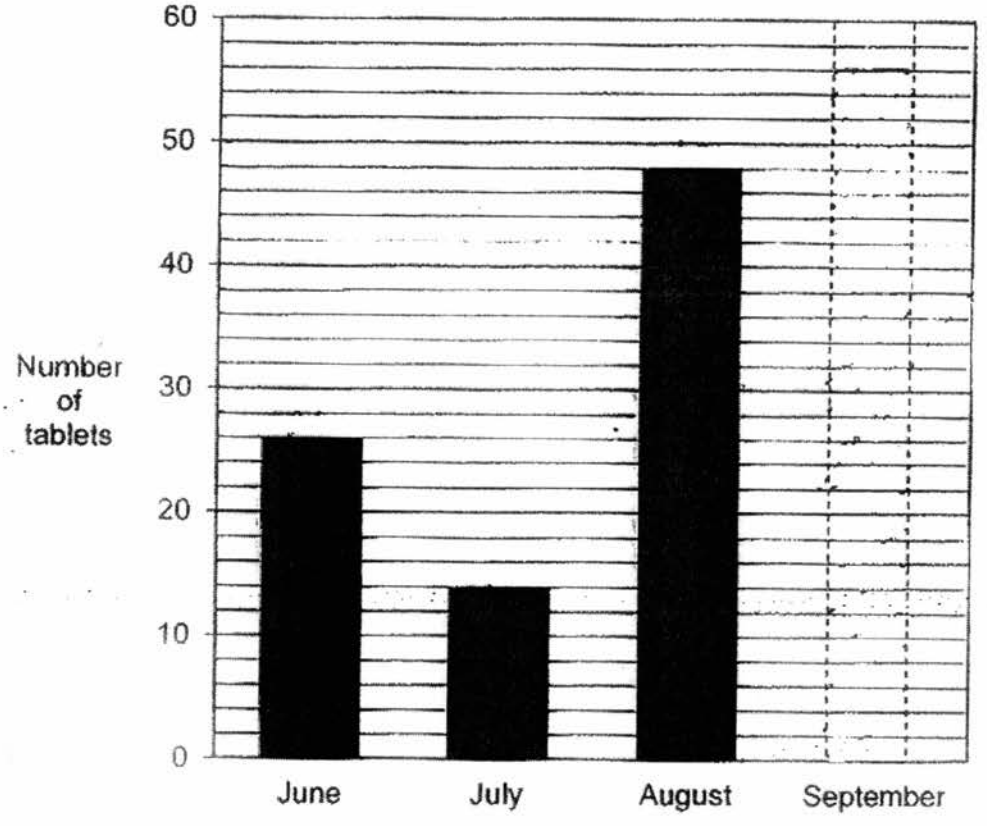
Do not write in this space.



For questions 6 to 18, show your working 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.
All diagrams are not drawn to scale. (50 marks)

Do not write in this space.

6. The bar graph below shows the number of tablets sold in 4 months. The bar that shows the number of tablets sold in September has not been drawn.



[1]

The number of tablets sold in August was $\frac{1}{3}$ of the total number of tablets sold in the 4 months.

(a) What was the total number of tablets sold in the 4 months?

(b) Draw the bar that shows the number of tablets sold in the month of September in the graph.

Ans: (a) _____ [2]

7. At a sandwich shop, the price of a chicken sandwich was \$5.60 and the price of a fish sandwich was \$6.40. Mrs Wong bought 85 chicken and fish sandwiches and paid \$496.80 for them. How many fish sandwiches did Mrs Wong buy?

Do not write in this space.

Ans _____ [3]

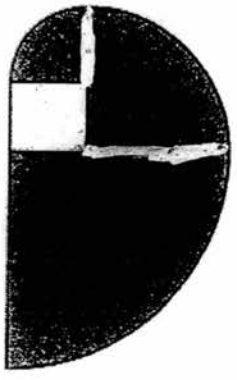
8. Jim and Ken shared the total cost of a lunch. Jim paid \$12 more than $\frac{3}{7}$ of the cost of the lunch. Ken paid \$24. How much did the lunch cost?

Do not write in this space.

Ans: _____ [3]

9. The figure shown below is made up of a square of sides 2 cm and 3 quarter circles of different radii. What is the perimeter of the shaded part of the figure?
Give your answer in terms of π.

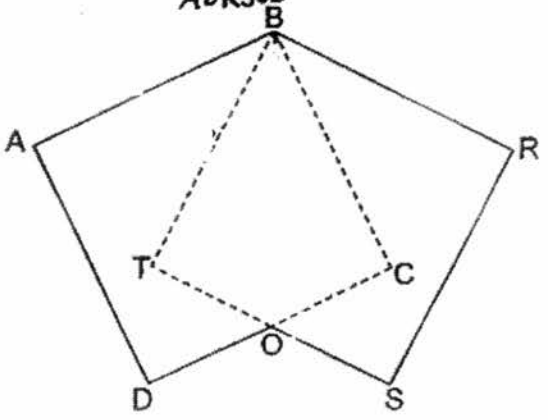
Do not write in this space.



Ans: _____ [3]

10. The figure ABRSOD shows two identical squares ABCD and BRST of sides 18 cm overlapping each other. O is half-way between CD and ST. What is the area of the figure ~~ABROSD?~~ ABRSOD

Do not write in this space.



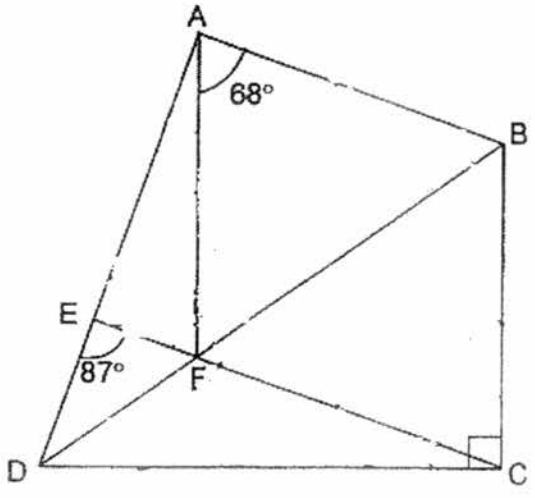
Ans: _____ [3]

11. **In the figure, ABCF is a rhombus and BCD is a right-angled triangle. EFC and AED are straight lines. ∠FAB = 68° and ∠DEF = 87°.**

Do not write in this space

(a) Find ∠BDC.

(b) Find ∠EAF.



Ans: (a)_____ [2]

(b)_____ [2]

12. Peter bought a pair of sport shoes for $135 after a discount of 25%.

(a) What was the price of the pair of sport shoes before discount?

(b) He paid $44 for a basketball. The total discount for the pair of sport shoes and the basketball was $51. What was the percentage discount given for the basketball?

Do not write in this space

Ans: (a) _____ [2]

(b) _____ [2]

13. Eddie and Faizal started running from the same place in opposite directions along a straight path. Eddie ran at a speed of 145 m/min and Faizal ran at a speed that was 35 m/min slower than Eddie. Both ran for the same length of time and did not change their speeds throughout. At the end of the run, Eddie had ran a distance of 525 m more than Faizal. How far apart were Eddie and Faizal at the end of their run?

Do not write in this space.

Ans: _____ [4]

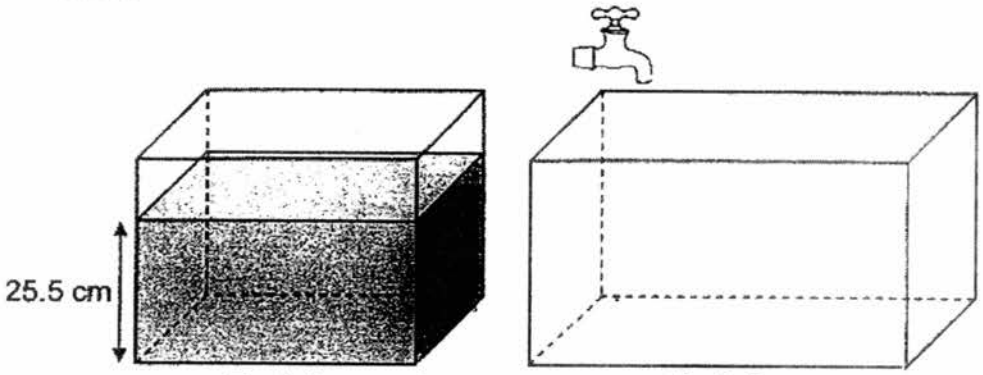
14. Mr Lee baked the same number of egg tarts, cheese tarts and fruit tarts. After 61 fruit tarts and some egg tarts and cheese tarts were eaten, there were altogether 85 tarts left. There were three times as many egg tarts as cheese tarts left. The number of fruit tarts left was 5 fewer than the number of cheese tarts left. How many egg tarts were eaten?

Do not write in this space.

Ans: _____ [4]

15. **Tank A and Tank B were two rectangular tanks. The base area of Tank A was 1800 cm^2 while that of Tank B was 2400 cm^2. At first, Tank A contained water to a height of 25.5 cm and Tank B was empty as shown below.**

Do not write in this space.



Then, water flowed from a tap into Tank B at a rate of 3 litres per minute for 12 minutes.

(a) What was the volume of the water in Tank B at the end of the 12 minutes?

(b) Some water was then transferred from Tank A to Tank B until the height of the water level was the same in both tanks. What was the new height of the water level in both tanks?

Ans: (a) _____ [1]

(b) _____ [4]

16. Alvin has some 10¢, 20¢ and 50 ¢ coins in a money box.
The ratio of the number of 10¢ coins to that of 20 ¢ coins is 1 : 2.
The ratio of the number of 50¢ coins to the total number of 10¢ and 20¢ coins is 3 : 4.
The total value of the 50¢ coins is $16.40 more than the total value of the 10 ¢ coins.
How much money does Alvin have in his money box?

Do not write in this space.

Ans: _____ [4]

17. A tin box filled with 50 identical glass marbles weighs 1.1 kg. The same tin box when filled with 20 identical steel marbles weighs 1.3 kg. The mass of each glass marble is 39.7 g less than that of a steel marble. What is the mass of an empty tin box?

Do not write in this space.

Ans: _____ [5]

18. **Thomas spent $\frac{2}{3}$ of his money on 3 books and 7 pens.**
The cost of each book is 3 times the cost of each pen.
He bought some more pens with $\frac{1}{4}$ of his remaining money and had $45 left.
How much did Thomas spend on the pens altogether?

Do not write in this space.

Ans:_____ [5]

END OF PAPER.
PLEASE CHECK YOUR WORK CAREFULLY.

SCHOOL : CATHOLIC HIGH SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATH
TERM : PRELIM 2

CONTACT :

PAPER 1 BOOKLET A

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
3	4	4	3	4	1	2	1	1	2

Q 11	Q12	Q13	Q14	Q15
3	1	4	3	3

PAPER 1 BOOKLET B

Q16)	0.43
Q17)	1, 2, 4
Q18)	29.60
Q19)	3:2
Q20)	6000÷200 = 30
Q21)	126^0
Q22)	1/12
Q23)	8.50 ÷ 5 = 1.70 1.70 x 2 = 3.40
Q24)	$20 → 5 pkt $40 → 10 pkt $60 → 15 pkt
Q25)	60

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Q26)	8X6=48 48÷3=16 16-5=11 11+6=<u>17</u>
Q27)	28 + 12 + 12 = 52 52 ÷ 2 = 26 26 x 3 = 78 78 -12 = 66 66 – 28 = <u>38</u>
Q28)	4 x 4 = 16 16 x 3 = 48 48 – 10 = <u>38</u>
Q29)	24 A = 36 Oranges 6 A = 9 Oranges 18 A = 27 Oranges Apples → 24 – 18 = <u>6</u>
Q30)	Length of square → 3 cm + 3 cm = 6 cm Area of square (4 L-shape) → 6 cm x 6 cm = 36 cm^2 Area of one L-shape → 36 cm^2 ÷ 4 = <u>9</u> cm^2

PAPER 2

Q1)	Total points → 57 x 3 = 171 Third player score → 171 - 96 = <u>75</u>
Q2)	D → (160 + y) cm M → (160 + y – 3) cm = <u>(157 + y) cm</u>

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Q3)	26 + 35 = 61 100 – 61 = 39 39 ÷ 3 = 13 13 x 2 = 26 Ans : 26%
Q4)	35 – 26 = 9 36 ÷ 9 = 4 4 x 100 = 400
Q5)	-
Q6)	(a) 48 x 3 = 144 (b) 48 + 14 + 26 = 88 144 – 88 = 56
Q7)	$5.60 x 85 = $ 476 $ 496.80 - $ 476 = $ 20.80 $ 6.40 - $ 5.60 = $ 0.80 $ 20.80 ÷ $ 0.80 = 26
Q8)	$24 + $12 = $36 $36 ÷ 4 = $9 $9 x 7 = $63
Q9)	$\frac{1}{4}$ x π x 4 x = π $\frac{1}{4}$ x π x 8 = 2 π $\frac{1}{4}$ x π x 12 = 3 π 2 + 2 + 2 + 6 + π + 2 π + 3 π = 6 π + 12 **Ans**: (6 π + 12) cm

Q10) Area of square → 18cm x 18cm = 324 cm^2

Area of 2 squares → 324cm^2 x 2 = 648 cm^2

Length of OT → 18/2 cm = 9cm

Area of BOT → ½ x 9 cm x 18 cm = 81 cm^2

Area of BOT and BOC → 81cm^2 x 2 = 162 cm^2

Area of ABRSOD → (648 – 162) cm^2 = <u>486 cm^2</u>

Q11) (a) 180 – 68 = 112

112 + 2 = 56

56 + 90 = 146

180 – 146 = 34

Ans : <u>34°</u>

(b) 90 – 68 = 22

22 + 34 = 56

180 – 56 = 124

180 – 87 = 93

56 x 2 = 112

180 – 112 = 68

68 + 93 = 161

180 – 161 = 19

Ans : <u>19°</u>

Q12) (a) 100% - 25% = 75%

$135 / 75 = $1.80

$1.80 x 100 = <u>$180</u>

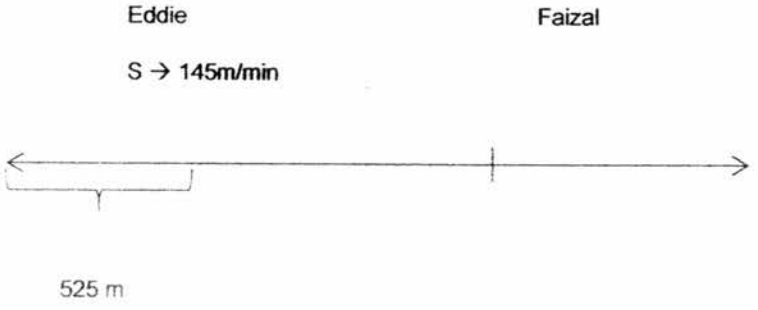
(b) $1.80 x 25 = $45

$51 - $45 = $6

$44 + $6 = $50

6/50 x 100% = <u>12%</u>

Q13)



In 1 min, Eddie ran 35m faster than Faizal.

No. of mins → 525 ÷ 35 = 15

D for Eddie → 145m/min x 15 min = 2175 m

D for Faizal → 2175m – 525m = 1650m

2175m + 1650m = <u>3825m</u>

Q14) 85 + 5 = 90

90 ÷ 5 = 18

18 x 3 = 54

18 – 5 = 13

13 + 61 = 74

74 – 54 = <u>20</u>

Q15) (a) 3 L x 12 = <u>36 L</u>

(b) 1800 x 25.5 = 45900

36 L = 36000 cm^3

45900 + 36000 = 81900

1800 + 2400 = 4200

81900 ÷ 4200 = <u>19.5</u>

Ans : <u>19.5 cm</u>

Q16)

10¢	:	20¢	:	Total 10¢ & 20 ¢	:	50¢
1	:	2	:	3		
				4	:	3 (x3)
4 (x4)	:	8	:	12		
				12	:	9
4	:	8	:	12	:	9

9 x $0.50 = $4.50

4 x $0.10 = $0.40

$4.50 - $0.40 = $4.10

$16.40 ÷ $4.10 = 4

(4 x $0.10) + (8 x $0.20) + (9 x $0.50)

= $0.40 + $1.60 + $4.50

= $6.50

$6.50 x 4 = $26

Q17) Difference in total weight → 1.3 kg – 1.1 kg = 0.2 kg

0.2 kg = 200 g

20 x 39.7g = 794 g

974g – 200g = 574g

574g all contributed by 30 glass balls.

574g ÷ 30 = 19.8g

Total glass ball = 19.8g x 50 = 990g

Weight of tin → 1100g – 990g = 110g

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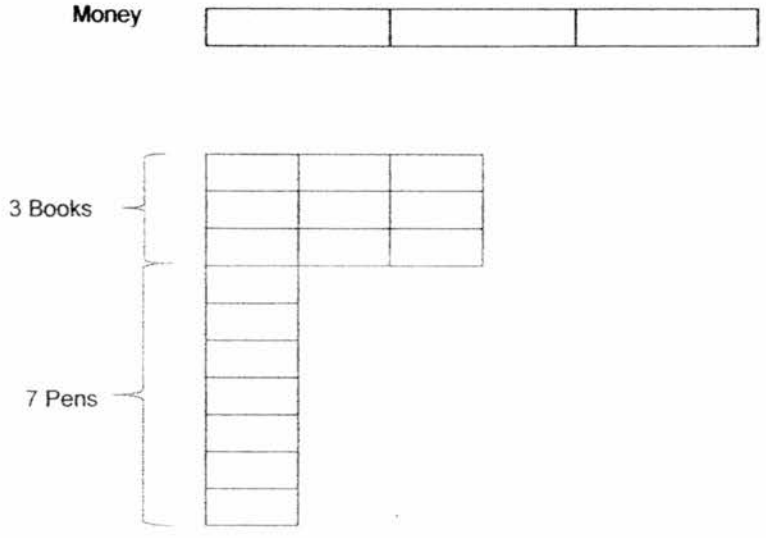
Q18)



3 x 3 = 9

9 + 7 = 16

16 ÷ 2 = 8

Money → 8 x 3 = 24U

More Pen → ¼ x 8= 2

Total Pens → 7 + 2 = 9

8U – 2U = 6U

6U → $45

1U → $45 ÷ 6 = $7.50

Total Pens cost → $7.50 x 9 = $67.50