

Name : \_\_\_\_\_ ( )

10 May 2011

Class : P 5 \_\_\_\_\_



**CATHOLIC HIGH SCHOOL**

**PRIMARY FIVE**

**MID-YEAR EXAMINATION 2011**

**MATHEMATICS**

**PAPER 1**

**(BOOKLET A)**

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.

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

You are not allowed to use a calculator.

Answer all questions.

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 on the Optical Answer  
Sheet. All diagrams are not drawn to scale. (20 marks)

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1. Round off 685 793 to the nearest ten thousands.

- (1) 680 000
  - (2) 685 800
  - (3) 686 000
  - (4) 690 000
- 

2. What is the value of digit 7 in 457 821?

- (1) 7
  - (2) 70
  - (3) 700
  - (4) 7000
- 

3. Express  $2\frac{3}{6}$  as a decimal.

- (1) 2.3
  - (2) 2.5
  - (3) 2.36
  - (4) 2.63
- 

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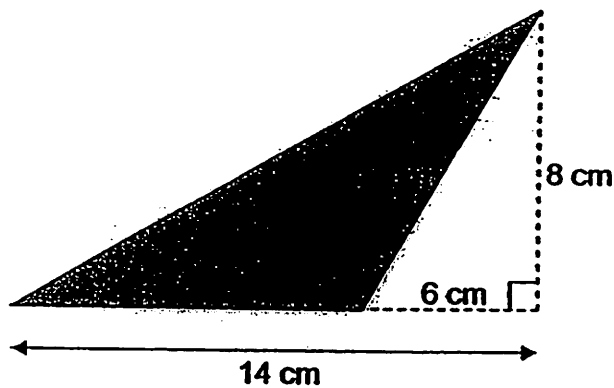
4. How many sixths are there in  $3\frac{2}{3}$ ?

- (1) 4
  - (2) 9
  - (3) 11
  - (4) 22
- 

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

- (1)  $\frac{1}{2}$
  - (2)  $\frac{4}{5}$
  - (3)  $1\frac{1}{3}$
  - (4)  $1\frac{1}{4}$
- 

6. Find the area of the shaded triangle.



- (1)  $24 \text{ cm}^2$
  - (2)  $32 \text{ cm}^2$
  - (3)  $40 \text{ cm}^2$
  - (4)  $56 \text{ cm}^2$
- 

(Go on to the next page)

7. Orange syrup is mixed with water in the ratio of 1 : 3. How much orange syrup is needed if 15 litres of water is used?

- (1) 5 litres
- (2) 12 litres
- (3) 17 litres
- (4) 45 litres

8. Express 15 minutes as a fraction of 2 hours.

- (1)  $\frac{1}{8}$
- (2)  $\frac{4}{3}$
- (3)  $\frac{15}{2}$
- (4)  $\frac{40}{3}$

9. What is the missing number in the box?

$$10 - \frac{4}{3} = \frac{\square}{8}$$

- (1) 14
- (2) 37
- (3) 43
- (4) 74

(Go on to the next page)

10. Mark had a roll of rope  $4\frac{1}{8}$  m long. He cuts it into 9 equal pieces. What is the length of each piece of rope?

(1)  $\frac{13}{72}$  m

(2)  $\frac{5}{72}$  m

(3)  $\frac{11}{24}$  m

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

- 
11. Joanne is 40 years old and her son is 13 years old now. How many years ago was she 4 times as old as her son?

(1) 4

(2) 5

(3) 8

(4) 9

- 
12. Gabriel cuts a string in the ratio 5 : 4. He cuts the longer piece further into 2 pieces in the ratio of 2 : 1. What is the ratio of the shortest piece to the longest piece?

(1) 1 : 3

(2) 1 : 5

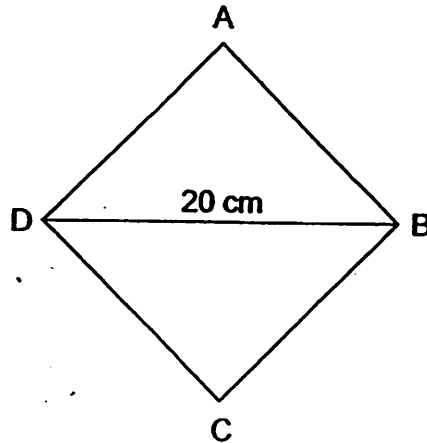
(3) 4 : 15

(4) 5 : 12

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13. In the diagram below, ABCD is a square.  $DB = 20$  cm. What is the area of the square?



- (1)  $100 \text{ cm}^2$   
(2)  $200 \text{ cm}^2$   
(3)  $300 \text{ cm}^2$   
(4)  $400 \text{ cm}^2$
- 
14. There are 20 pages in Samuel's storybook. What is the total number of digits on all the page numbers?
- (1) 19  
(2) 20  
(3) 29  
(4) 31
- 
15. The ratio of the number of red beads to green beads to yellow beads in a box is  $2 : 4 : 5$ . If there are 126 red beads and green beads altogether, how many yellow beads are there?
- (1) 28  
(2) 72  
(3) 105  
(4) 315

(Go on to Booklet B)

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**CATHOLIC HIGH SCHOOL**

**PRIMARY FIVE**

**MID-YEAR EXAMINATION 2011**

**MATHEMATICS**

**PAPER 1**

**(BOOKLET B)**

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.

Show your working clearly as marks are awarded for correct working.

Write your answers in this booklet.

You are not allowed to use a calculator.

Booklet A	
Booklet B	
Total	

Questions 16 to 25 carry 1 mark each. Write your answers in the space provided.  
For questions which require units, give your answers in the units stated.

Do not write  
in this space

(10 marks)

16. Write seven hundred and five thousand and sixty-four in figures.

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

17. Find the value of  $99 \times 1001 - 99$ .

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

18. Find the value of  $\frac{5}{6} \div \frac{1}{9}$

Express your answer in its simplest form.

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

19. Find the value of  $\frac{2}{7} \div 8$ .

Express your answer as a fraction in its simplest form.

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

(Go on to the next page)

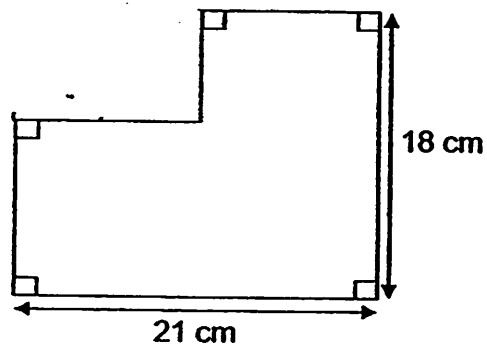
20. Form the greatest even number with the four digits:

8, 0, 1, 5

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

Do not write  
in this space

21. Find the perimeter of the figure.



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

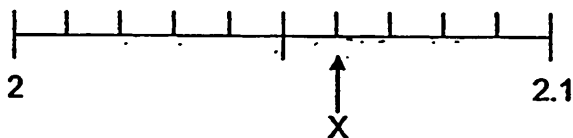
22. Round off 12.49 to the nearest 1 decimal place.

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

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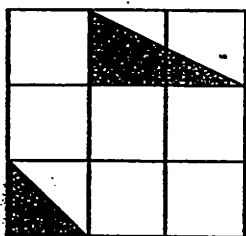
Do not write  
in this space

23. The diagram below shows a number line. Find the value of X.



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

24. The figure is made up of 9 identical squares. What fraction of the figure is shaded? Express your answer in its simplest form.

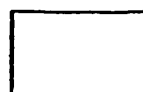


Ans: \_\_\_\_\_

25. In a car park, the ratio of the number of cars to the number of motorcycles to the number of lorries is 15 : 8 : 2. There are 72 fewer lorries than motorcycles. How many cars are there in the car park?

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

Total marks for questions 16 to 25  
(Go to the next page)



Questions 26 to 30 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.

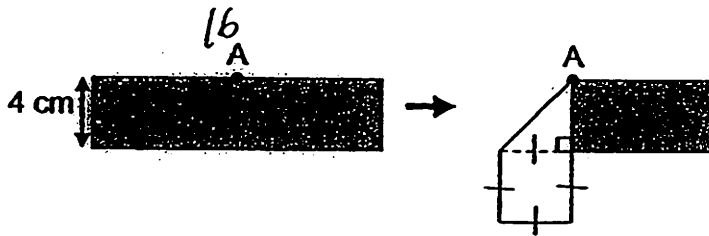
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(10 marks)

26. The perimeter of a rectangle is 22 cm. If its length is 9 cm, what is the breadth of the rectangle?

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

27. A rectangular strip, 4 cm wide, is folded at point A in the figure below. Point A is at the mid-point of the length of the strip. What is the area of the rectangular strip before the fold?



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

28. Christian buys 50 oranges and 60 apples at \$60. He can buy 100 oranges with the same amount of money. If he decides to buy only apples, how many apples can he buy?

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

(Go on to the next page)

29. What is the value of  $60 - 45 \div (21 - 16) \times 6$  ?

Do not write  
in this space

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

30.  $\frac{1 \times 8}{7 \times 6}$  of Matthew's allowance is the same as  $\frac{3}{8}$  of Ryan's allowance. What is the ratio of Matthew's allowance to Ryan's allowance?

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

End of Paper 1

Name : \_\_\_\_\_ ( )

10 May 2011

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**CATHOLIC HIGH SCHOOL**

**PRIMARY FIVE**

**MID-YEAR EXAMINATION 2011**

**MATHEMATICS**

**PAPER 2**

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

Total Time: 1 h 40 min

Parent's Signature: \_\_\_\_\_

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Show your working clearly as marks are awarded for correct working.

Write your answers in this booklet.

You are allowed to use a calculator.

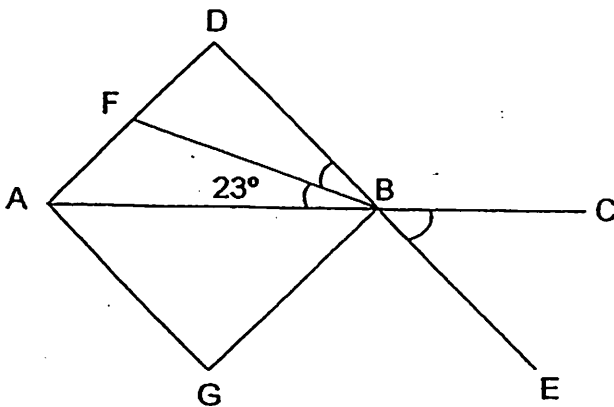
Questions 1 to 5 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space

1. Mrs Lim bought 8 kg of flour. She used  $\frac{1}{4}$  of the flour to bake some cookies and  $\frac{4}{7}$  kg of flour to bake a cake. How much flour did she use?

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

2. ADBG is a square. ABC and DBE are straight lines. Find the sum of  $\angle DBF$  and  $\angle CBE$ .

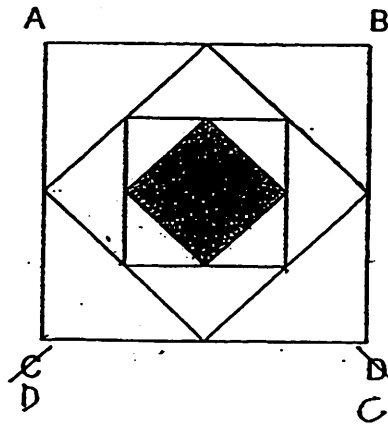


Ans: \_\_\_\_\_ °

(Go on to the next page)

3. The figure below consists of 4 squares of different sizes. The corners of each square touch the sides of a bigger square at the mid-point. What fraction of ABCD is shaded? Express your answer in its simplest form.

Do not write in this space



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

4. The table shows the postage rates by mass for delivery of a parcel.

For the first 500g	\$1.25
Every additional 100g or part thereof	50¢

How much is the amount of postage if a parcel weighs 650g?

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

(Go on to the next page)

5. When the time is 0845 in Canberra, it would be 0545 in Singapore. Zachary boarded a plane and took off from Canberra at 0930. When it landed in Singapore, Zachary checked a clock at the airport and it showed 1345. How long was the flight?

Do not write  
in this space

Ans: \_\_\_\_\_ h \_\_\_\_\_ min

(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 football match, the ratio of the number of male spectators to the number of female spectators was 5 : 3. It became 3 : 1 after 300 female spectators left the match. How many more male than female spectators were there at first?

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

7. There were 269 lampposts along a straight road. The distance between every 2 lampposts was 6 m. Find the distance between the first lamppost and the last lamppost.

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

(Go on to the next page)

8. Egg tarts are sold in box of 3 while fruit tarts are sold in box of 6. Zachary bought several boxes of egg tarts and fruit tarts as gifts for his relatives.  $\frac{3}{5}$  of the boxes contained egg tarts. What is the ratio of the number of egg tarts to the number of fruit tarts? Express your answer in its simplest form.

Do not write in this space

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

9. Library A has  $\frac{3}{5}$  as many books as Library B. When 3500 books were transferred from Library A to Library B, it had  $\frac{1}{5}$  as many books as Library B. What was the total number of books in the two libraries?

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

(Go on to the next page)

10. A group of children shared some candy canes at a party. If each child was given 1 candy cane, 80 candy canes would be left. If each child was given 4 candy canes, 8 candy canes would be left. How many children were at the party?

Do not write  
in this space

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

(Go on to the next page)

11. Ivan cuts a string measuring 224 cm long into 3 pieces of different length. If the length of the first piece is tripled, the second piece is halved, and the third piece is increased by 36 cm, they will be equal in length. What will be the length of the third piece?

Do not write  
in this space.

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

(Go on to the next page)

12. The figure below consists of 3 rectangles ABCD, ECFG and OPQR. The ratio of the area of rectangle ABCD to the area of rectangle ECFG to the area of rectangle OPQR is 3 : 2 : 1.

If  $\frac{1}{4}$  of OPQR is shaded, what fraction of the whole figure is not shaded?

Do not write  
in this space.

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

(Go on to the next page)

13. Doris kept some sweets and chocolates in a container. The ratio of the number of sweets to the number of chocolates is 7 : 6. After 45 sweets and 45 chocolates were taken from the container, the ratio of the number of sweets to the number of chocolates became 11 : 9. Doris put in another 20 chocolates into the container. How many chocolates were there in the container in the end?

Do not write  
in this space.

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

(Go on to the next page)

14. Tristan, Joe and Caspian shared the cost of a computer game console.

Tristan's share is  $\frac{3}{4}$  of Joe's share.

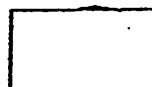
Joe's share is  $\frac{5}{6}$  of Caspian's share.

The difference between the biggest and the smallest share was \$72.

Find the cost of the computer game console.

Do not write  
in this space.

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



(Go on to the next page)

15. At a café, there were thrice as many curry puffs as beef pies. After 100 curry puffs and 20 beef pies were sold, there were twice as many beef pies as curry puffs left. How many curry puffs were there at first?

Do not write  
in this space

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

(Go on to the next page)

16. Mrs Tan bought tickets to the Universal Studio. An adult ticket costs \$66 while a child ticket costs \$48. A senior ticket costs \$32. The ratio of the number of adult tickets to the number of child tickets to the number of senior tickets is 3 : 5 : 2.

- a) Given that she paid a total of \$1048 for the adult tickets and the senior tickets, how many child tickets did she buy?
- b) How much more had she spent on child tickets than senior tickets?

Do not write  
in this space.

Ans: a) \_\_\_\_\_ [3]

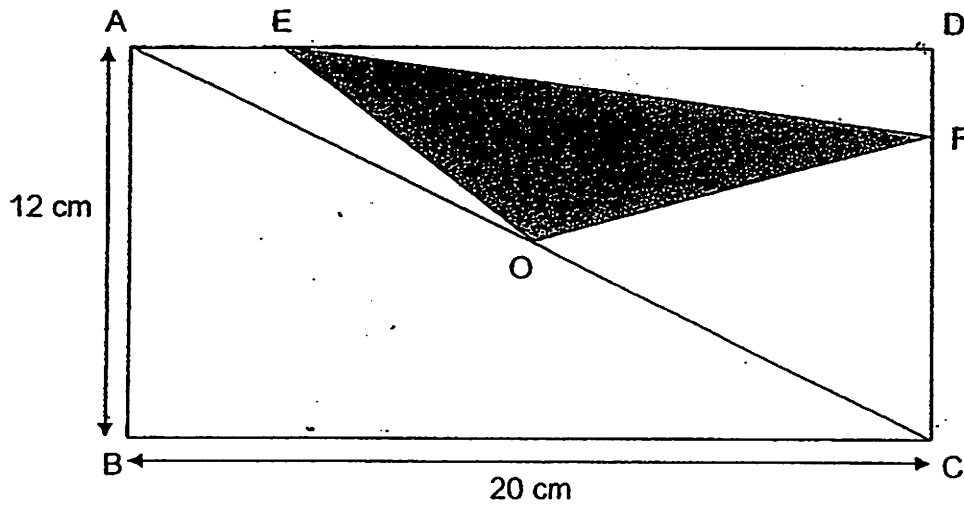
b) \_\_\_\_\_ [2]



(Go on to the next page)

17. The figure below shows a rectangle ABCD with O as its centre.  $BC = 20$  cm and  $AB = 12$  cm. Given that  $AE : ED$  is  $1 : 4$  and  $DF : FC$  is  $1 : 3$ , find the area of the triangle EFO.

Do not write in this space.



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

(Go on to the next page)

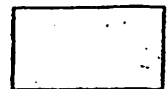
18. Mr Tan withdrew a sum of money from the bank. He used  $\frac{1}{5}$  of the money to buy a refrigerator and  $\frac{1}{3}$  of the remaining money to buy a television set at an electrical appliance shop. He then used  $\frac{3}{8}$  of the remaining money to pay for a car tyre at a repair shop.

- a) What fraction of the money withdrawn from the bank was used to pay for the tyre? Express your answer in the simplest form.
- b) If the amount paid for the tyre was \$350, how much money did Mr Tan withdraw from the bank?

Do not write  
in this space

Ans: a) \_\_\_\_\_ [3]

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



End of Paper 2

# ANSWER SHEET

## EXAM PAPER 2011

SCHOOL : CATHOLIC HIGH  
SUBJECT : PRIMARY 5 MATHEMATICS

TERM : SA1

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

- 16)705064      17)99000      18)17/18      19)1/28      20)8510  
21)78      22)12.5      23)2.06      24)3/18      25)180  
26)2      27)64      28)120      29)6      30)21 : 8

### Paper 2

- 1)  $\frac{1}{4} \times \frac{8}{1} = 2$   
 $2 + \frac{4}{7} = 2\frac{4}{7}$ kg
- 2)  $45 - 23 = 22$   
 $45 + 22 = 67^\circ$
- 3)  $\frac{1}{8}$
- 4)  $\$1.25 = 50c + 50c = \$2.25$
- 5)  $0845 - 0545 = 3h$   
 $0930 - 3h = 0630$   
 $1345 - 0630 = 7h 15min$
- 6) M : F      3 : 1  
5 : 3       $\times 5$        $\times 5$   
 $\times 3$        $\times 3$       15 : 5  
15 : 9  
 $9 - 5 = 4$   
 $4u = 300$   
 $1u \rightarrow 300 \div 4 = 75$   
 $6u = 75 \times 6 = 450$
- 7)  $269 - 1 = 268$   
 $268 \times 6m = 1608m$
- 8) Egg : Fruit  
3 : 2  
 $\times 3$        $\times 6$   
9 : 12 = 3 : 4
- 9) A : B  
3 : 5 = 8  
 $\times 3$        $\times 3$        $\times 3$   
9 : 15 24  
  
1 : 5 = 6  
 $\times 4$        $\times 4$        $\times 4$   
4 : 20 24  
 $9 - 4 = 5$   
 $5u = 3500$   
 $1u = 3500 \div 5 = 700$   
 $24u = 24 \times 700 = 16800$
- 10)  $80 - 8 = 72$   
 $4 - 1 = 3$   
 $72 \div 3 = 24$

QTEND.

$$11) 10u = 224 + 36 = 260$$

$$1u = 260 \div 10 = 26$$

$$3u = 36 \times 3 = 78$$

$$78 - 36 = 42\text{cm}$$

$$12) 3 : 2 : 1$$

$$= 12 : 8 : 4$$

$$\frac{4+7+3}{12+3} = \frac{14}{15}$$

$$13) \text{Before} \quad \text{After}$$

$$7 : 6 \quad 11 : 9$$

$$= 14 : 12$$

$$14u - 11u = 3u$$

$$3u \rightarrow 45$$

$$1u \rightarrow 45 \div 3 = 15$$

$$9u = 15 \times 9 = 135$$

$$135 + 20 = 155$$

$$14) T : J \quad J : C$$

$$3 : 4 \quad 5 : 6$$

$$\frac{x5}{15} : \frac{x5}{20} \quad \frac{x4}{20} : \frac{x4}{24}$$

$$15 : 20 \quad 20 : 24$$

$$24 - 15 = 9$$

$$15 + 20 + 24 = 59$$

$$9u = \$72$$

$$1u = \$72 \div 9 = \$8$$

$$59u = 59 \times \$8 = \$472$$

$$15) 108$$

$$16) a) 20$$

$$b) \$704$$

$$17) 39\text{cm}^2$$

$$18) a) 1/5$$

$$b) \$1750$$