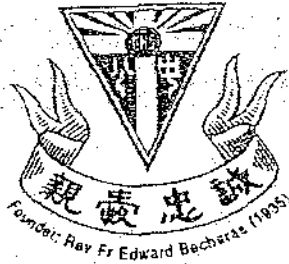


Name: _____ ()

23 June 2009

Class: P 6: _____



CATHOLIC HIGH SCHOOL

PRIMARY SIX

PRELIMINARY EXAMINATION 2

MATHEMATICS

PAPER 1

(BOOKLET A)

5 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)

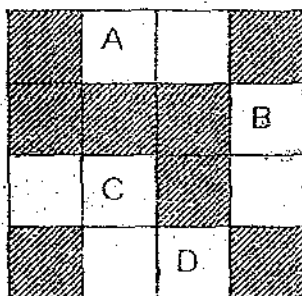
1. Which one of the following has the digit 5 in the ten thousands place?

- (1) 4 257 036
 - (2) 5 467 021
 - (3) 6 745 180
 - (4) 8 529 190
-

2. What is the best estimate of 4.09×991 ?

- (1) 3 600
 - (2) 4 000
 - (3) 4 500
 - (4) 5 000
-

3. Which square must be shaded so that the figure has a line of symmetry?

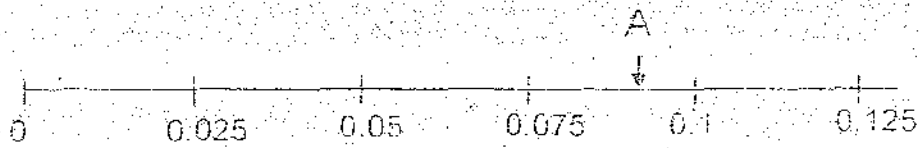


- (1) A
- (2) B
- (3) C
- (4) D

34

(Go to the next page)

4. What is the value of A?



- (1) 0.076
- (2) 0.078
- (3) 0.080
- (4) 0.090

5. In a factory, there were 288 workers. 36 of them were women. What fraction of the workers were men?

- (1) $\frac{9}{25}$
- (2) $\frac{9}{72}$
- (3) $\frac{7}{8}$
- (4) $\frac{1}{8}$

6. In a school, there are 25% more boys than girls. Altogether, there are 900 boys in the school, how many girls are there?

- (1) 600
- (2) 675
- (3) 720
- (4) 1125

7. A machine takes 132 s to cut a piece of rope into 12 equal parts. At this rate, how long will it take to cut the rope into 16 equal parts?

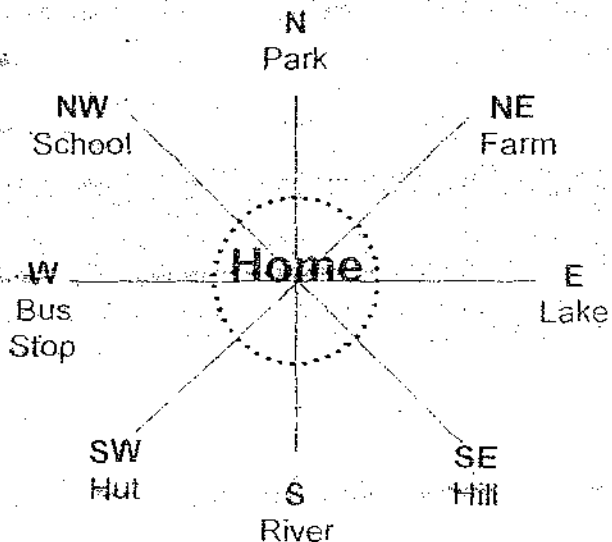
- (1) 165 s
- (2) 176 s
- (3) 180 s
- (4) 192 s

(Go to the next page) 25

8. A tree grows an average height of 25 cm every year. It was 3.9 m tall 3 years ago. How tall is the tree now?

- (1) 3.15 m
 - (2) 4.65 m
 - (3) 5.15 m
 - (4) 11.7 m
-

Use the information below to answer questions 9 and 10.

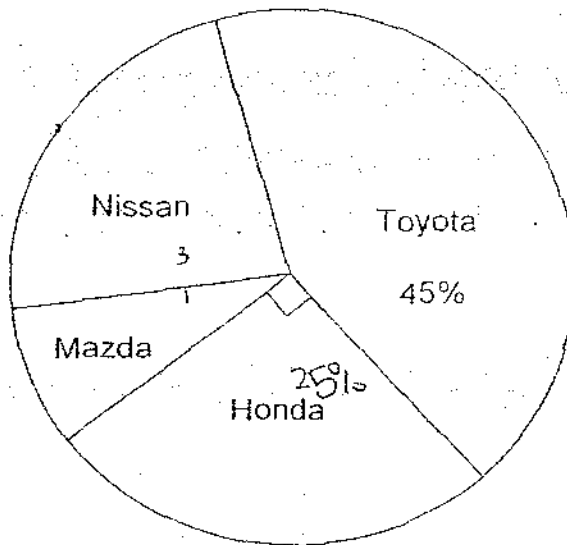


9. Nick was at home facing the bus stop after he made a 135° clockwise turn. What direction was he facing before he made the turn?
- (1) north-east
 - (2) north-west
 - (3) south-east
 - (4) south-west
-
10. If Nick walked along the pavement (represented by the dotted line) from the river to the lake, what was the angle he covered in his walk? (Assuming that he had taken the shorter route.)
- (1) 45°
 - (2) 90°
 - (3) 225°
 - (4) 270°

11. Fred spent 60% of his money on his dinner and 25% of the remainder on a pen. What percentage of his money was left?

- (1) 15%
- (2) 25%
- (3) 30%
- (4) 40%

12. The pie-chart shows the number of each brand of cars parked at a car park one afternoon.



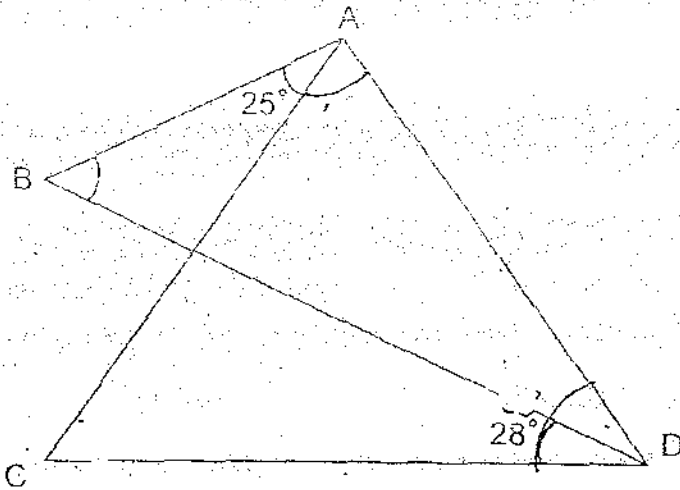
The ratio of the number of Nissan cars to that of Mazda cars was 3 : 1. If there were 160 more Toyota cars than Honda cars, how many cars were there at the car park altogether?

- (1) 240
- (2) 320
- (3) 640
- (4) 800

13. Roy took 30 min to cycle round a track twice. If his average speed was 12 km/h, how long was the track?

- (1) 360 m
- (2) 1800 m
- (3) 3 000 m
- (4) 6 000 m

14.



ACD is an equilateral triangle. Find $\angle ABD$.

- (1) 35°
- (2) 53°
- (3) 63°
- (4) 85°

15. Ali, Sean and Ted sat for a test. Ali scored 57 marks which was 34 marks less than Sean's score. If the three boys had an average score of 73, how many marks did Ted score?

- (1) 18
- (2) 39
- (3) 71
- (4) 164

Name: _____ () 23 June 2009

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.

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

Write your answers in this booklet.

You are allowed to use a calculator.

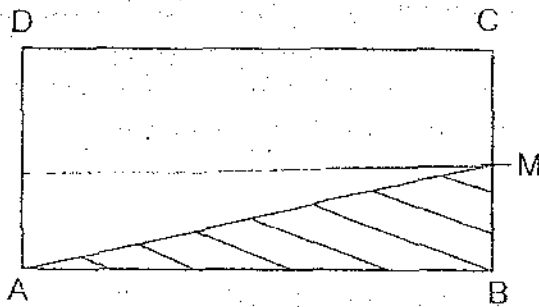
Questions 16 to 25 carry 1 mark each. Write your answers in the space provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space

16. What is the biggest whole number that when rounded off to the nearest hundred gives a value of 1 100?

Ans: _____

17. ABCD is a rectangle and M is the mid-point of CB. What percentage of the figure is not shaded?



Ans: _____ %

18. 2y apples cost \$12. Find the cost of 8 apples in terms of y. Express the answer in the simplest form.

Ans: \$ _____

19. In $\frac{8}{9} = \frac{8+?}{9+27}$, what is the missing number?

Ans: _____

40

(Go to the next page)

20. Express $1\frac{5}{9}$ as a decimal correct to 2 decimal places.

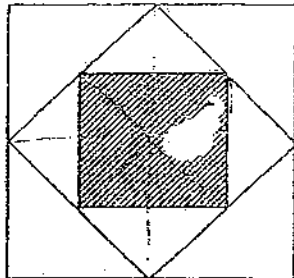
Do not write
in this space.

Ans: _____

21. Express 0.067 as a percentage.

Ans: _____ %

22. The figure below is formed by 3 squares. The area of the shaded square is 8 cm^2 . What is the area of the biggest square?



Ans: _____ cm^2

23. $\frac{5}{12}$ of A is equal to $\frac{4}{9}$ of B. What is the ratio of A : B?

Express the answer in the simplest form.

Ans: _____

(Go to the next page)

24. $\frac{2}{3}$ of a number is 60. What is 30% of the same number?

Do not write
in this space

Ans: _____

25. What is the value of $40 - 24 \div (3 + 5) + 6 \times 2$?

Ans: _____

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

42

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.
(10 marks)

Do not write in this space

26. The average price of a certain number of pens was \$9. When another pen which cost \$25 was added, the average price became \$11. Find the total number of pens at the end.

Ans: _____

27. A club has 96 members now. This was an increase of 20% from that of last year. How many members had the club last year?

Ans: _____

28. The ratio of the number of girls to the number of boys in a club was 2 : 3 last year. When 30 boys left the club this year, the ratio became 3 : 2, find the number of boys in the club this year.

Ans: _____

(Go to the next page)

43

29. Some trees were planted to form the sides of a square field. If there were 12 trees on each side of the field, what was the total number of trees planted?

Do not write
in this space

Ans: _____

30. When John was x years old, his mother was 7 times his age. How old will John be when his mother is 45 years old? Give

Ans: _____

End of Paper 1

144

Name: _____ () 23 June 2009

Class: P 60



CATHOLIC HIGH SCHOOL
PRIMARY SIX
PRELIMINARY EXAMINATION 2
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.

Answer all questions.

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

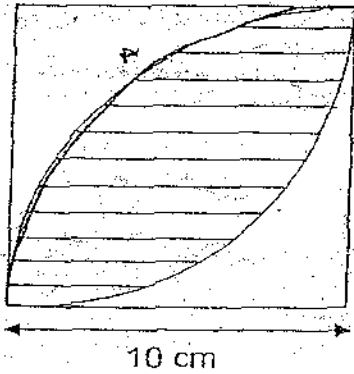
Write your answers in this booklet.

You are not allowed to use a calculator

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. The shaded part is formed by 2 quadrants and a square. Find the perimeter of the shaded part. Use the calculator value of π and give your answer correct to 2 decimal places.



Ans: _____ cm

2. April spent $\frac{2}{5}$ of her salary on food and $\frac{1}{6}$ of the remainder on transport. If she had \$600 left, how much did she spend on food?

Ans: \$ _____

3. What is the maximum number of circles of radius 5 cm that can be cut out from a piece of paper measuring 25 cm by 50 cm?

Ans: _____

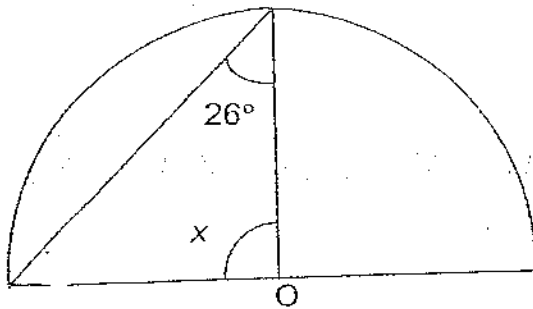
(Go to the next page)

4. Paul travelled 300 km in 4 hours. If his average speed for the first $1\frac{1}{2}$ h was 60 km/h, what was his average speed for the remaining time?

Do not write
in this space

Ans: _____ km/h

5. O is the centre of the semicircle. Find $\angle x$



Ans: _____ °

(Go 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. 5 pens and 8 pencils cost \$17.30. 4 pens and 4 pencils cost \$12.40
Find the cost of 1 pen.

Ans: _____ [3]

7. Roy gave $\frac{3}{14}$ of his salary to his parents, kept $\frac{4}{5}$ of the remainder for his daily expenses and saved another \$350 in a bank. If he had \$90 left, how much was his salary?

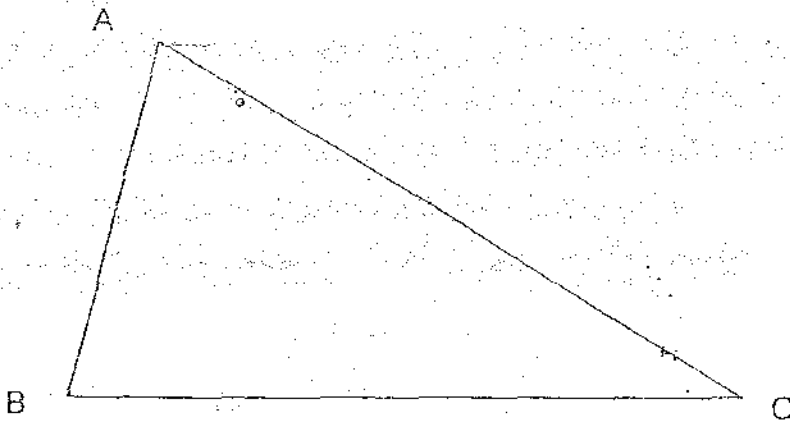
Ans: _____ [3]

(Go to the next page)

48

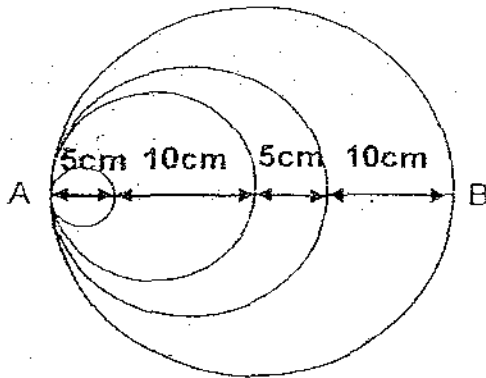
8. In the space below, using the given triangle ABC, draw a trapezium ABCD in which $\angle BCD$ is 60° . Measure the line AD.

Do not write in this space



Ans: _____ [3]

9.



The figure is made up of circles of 4 different sizes. AB is the diameter of the biggest circle. Find the area of the shaded parts. (Give your answer in terms of π .)

Ans: _____ [3]

(Go to the next page)

10. Ravi bought 4 key-chains for \$ w each. He bought another key-chain for \$8.

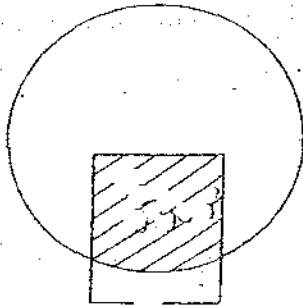
- a) Find the total cost of the 5 key-chains in terms of w .
b) If $w = 7$, what is the average cost of the 5 key-chains?

Do not write
in this space

s : a) _____ [1]

b) _____ [2]

11.



The figure is made up of a circle and a rectangle. The area of the rectangle is $\frac{3}{8}$ of the area of the circle. The shaded area is 88 cm^2 .

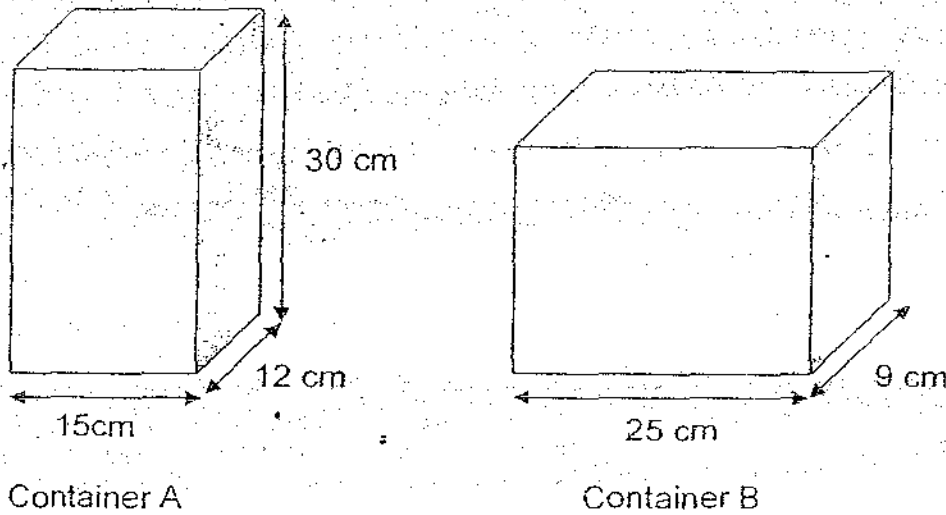
The area of the unshaded part of the rectangle is 10% that of the unshaded part of the circle. What is the difference between the unshaded areas?

Ans _____ [3]

50

(Go to the next page)

12. Container A measuring 15 cm by 12 cm by 30 cm is filled with water to the brim. Container B is an empty rectangular container with base 25 cm by 9 cm. After a certain amount of water from container A is poured into container B, the water level in both containers is the same. Find the height of the water. (Give your answer correct to 1 decimal place.)



Do not write
in this space

Ans: _____ [4]

(Go to the next page)

13. At a swimming pool, the number of boys to the number of girls was 4 : 3. After $\frac{3}{8}$ of the boys left and 12 more girls joined the group, there were $\frac{2}{3}$ as many boys as girls. How many children were there at the swimming pool at first?

Do
in th

Ans: _____ [4]

(Go to the next page)

52

14. Mr Tan and Mr Lim drove from Town X to Town Y. Mr Tan started his journey at 9a.m. travelling at an average speed of 68 km/h. Some time later, Mr Lim started his journey. At 11:15a.m., Mr Lim overtook Mr Tan. When Mr Lim reached Town Y at 12:15p.m., Mr Tan was still 17 km away from Town Y.
- a) Find Mr Lim's average speed.
 - b) At what time did Mr Lim start his journey?

Do not write in this space

Ans: a) _____ [1]
b) _____ [3]



(Go to the next page)

53

15. Tom had \$144 more than Ali at first. After Tom spent 25% of his money and Ali spent $\frac{1}{3}$ of his money, Tom had \$122 more than Ali.
How much did Tom have at first?

Do not write
in this space

54

Ans: _____ [5]

(Go to the next page)

16. Ailing, Bala, Chris and Dawn shared the cost of a gift for their friend. Ailing paid $\frac{1}{5}$ of the amount paid by Bala, Chris and Dawn. Chris paid 40% of the amount paid by by Ailing and Bala. The total amount paid by Ailing and Bala is equal to that paid by Chris and Dawn. Given that Dawn paid \$32 more than Ailing for the gift, what was the cost of the gift?

Do not write in this space

Ans: _____ [5]

55

(Go to the next page)

17. Ben had 40% more cards than Hugo. After Ben bought another 25% more cards, he had 225 cards more than Hugo. How many cards did Ben have in the end?

Do not write
in this space

Ans: _____ [5]

56

(Go to the next page)

18. Study the number sequence below and answer the questions below it:

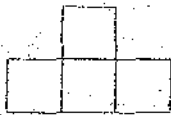
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Pattern 1



1

Pattern 2



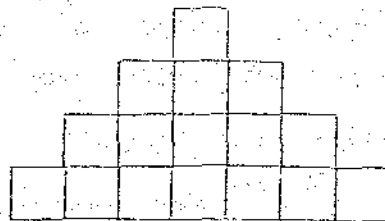
1 + 3

Pattern 3



1 + 3 + 5

Pattern 4



1 + 3 + 5 + 7

a) Write down the number sequence for Pattern 5.

b) Find the sum of all the numbers in Pattern 10.

c) Which pattern number will have 361 as the sum of all the numbers in its sequence?

Ans: a) _____ [1]

b) _____ [2]

c) _____ [2]

57

ANSWER SHEET

EXAM PAPER 2009

SCHOOL : CATHOLIC HIGH PRIMARY
SUBJECT : PRIMARY 6 MATHEMATICS

TERM : SA2

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

- 16)1149 17)75% 18)\$ (48/y) 19)24 20)1.56
21)6.7% 22)32cm 23)16:15 24)27 25)49
26)8 27)80 28)24 29)44 30)(45-6x)years

Paper 2

- 1)31.42cm 2)\$480 3)10 4)84km/h
5)128° 6)\$2.50 7)\$2800 8)4.8cm
9)175π cm² 10)a)\$ (4w+8) b)\$7.20
11)180cm² 12)13.3cm 13)112 14)a)85km/h
b)9.27a.m.
15)\$312 16)\$240 17) 525
18)a)1+3+5+7+9
b)100
c)19