

Name: _____ ()

Class: P 6 _____



CATHOLIC HIGH SCHOOL

PRIMARY SIX

PRELIMINARY EXAMINATION 1

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. (20 marks)

1. Round off 893 999 to the nearest ten thousands.

890 000

893 000

894 000

900 000

2. Which of the following decimals is the smallest?

0.2

0.11

0.015

0.009

3. Express 15 cm as a percentage of 2 m

0.075%

0.75%

7.5%

75%

4. What is the value of $24 + 16 \div 8 \times 3 - 1$?

10

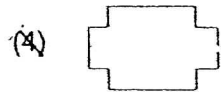
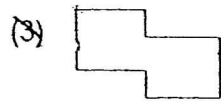
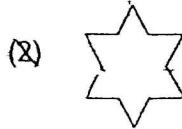
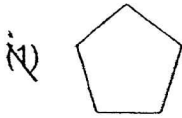
14

25

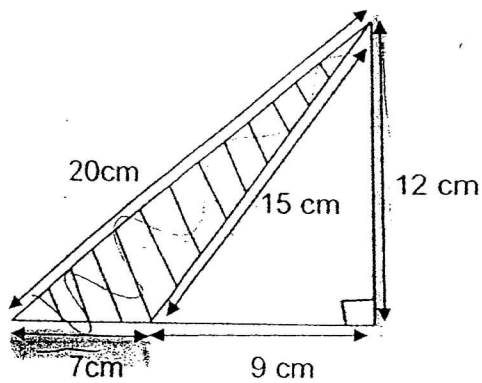
29

(Go to the next page)

5. Which of the following shapes is symmetrical and can tessellate?



6. Find the area of the shaded triangle.



- (A) 42 cm^2
 (B) 54 cm^2
 (C) 70 cm^2
 (D) 120 cm^2

(Go to the next page)

7. Jill is $\frac{5}{6}$ as tall as Betty. If their total height is 330 cm, what is Jill's height?

~~(1)~~ 150 cm

~~(2)~~ 165 cm

~~(3)~~ 180 cm

~~(4)~~ 198 cm

8. A piece of ribbon was $\frac{4}{5}$ m long. Jean used $\frac{2}{3}$ of the ribbon to decorate a gift. How much ribbon was left?

~~(1)~~ $\frac{1}{15}$ m

~~(2)~~ $\frac{2}{15}$ m

~~(3)~~ $\frac{4}{15}$ m

~~(4)~~ $\frac{8}{15}$ m

9. Crabs are sold at \$30 per kilogram. Find the cost of 900 g of crabs.

~~(1)~~ \$10

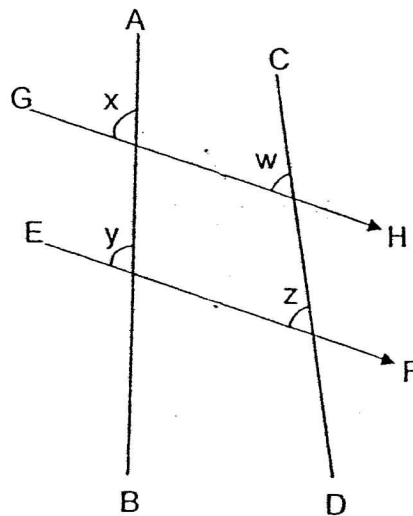
~~(2)~~ \$27

~~(3)~~ \$30

~~(4)~~ \$90

(Go to the next page)

10. In the figure, AB, CD, EF and GH are straight lines and EF is parallel to GH.



Which of the following statements is correct?

- (1) $\angle y + \angle z = \angle x + \angle w$
 (2) $\angle y + \angle x = \angle z + \angle w$
 (3) $\angle y + \angle x = 180^\circ$
 (4) $\angle z + \angle w = 180^\circ$

11. The charges for renting a car are given in the box below. Sam rented a car at 11.05 a.m. He returned it at 1.50 p.m.

Duration	Charges
1 st hour or part thereof	\$80
Subsequent half hour or part thereof	\$30

How much did he pay for renting the car?

- (1) \$110
 (2) \$170
 (3) \$200
 (4) \$350

(Go to the next page)

12. For every \$100 collected, V-store donated \$5 to charity. If the store donated \$200 to charity, how much money did it collect?

- (1) \$1000
 - (2) \$2000
 - (3) \$4000
 - (4) \$5000
-

13. After Keith spent 20% of his money on a reference book and 15% of the remainder on a CD, he had \$102 left. How much money had he at first?

- (1) \$136
 - (2) \$150
 - (3) \$680
 - (4) \$850
-

14. A mango is $\frac{4}{9}$ as heavy as a honeydew. $\frac{1}{3}$ of the mass of a honeydew is twice the mass of an apple. Find the ratio of the mass of the mango to the mass of an apple.

- (1) 2 : 3
 - (2) 8 : 3
 - (3) 2 : 9
 - (4) 4 : 9
-

15. At first, the ratio of Tim's savings to Don's savings was 7:8. After each of them spent \$20 on a meal, the ratio of Tim's savings to Don's savings became 11:14. What was Don's savings at first?

- (1) \$16
 - (2) \$28
 - (3) \$42
 - (4) \$48
-

(Go on to Booklet B)

Name: _____ ()

Class: P 6 _____



CATHOLIC HIGH SCHOOL
PRIMARY SIX
PRELIMINARY EXAMINATION 1
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.

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 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)

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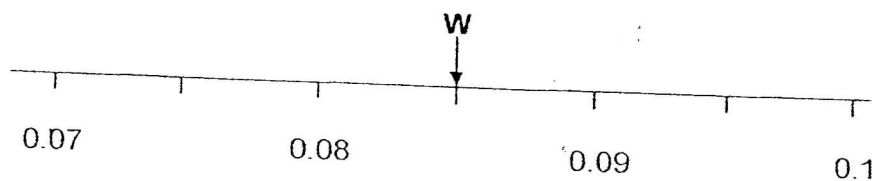
16. Express $3\frac{6}{7}$ as a decimal, correct to 2 decimal places.

Ans : _____

17. Simplify $8a - 3 + 5a + 9$.

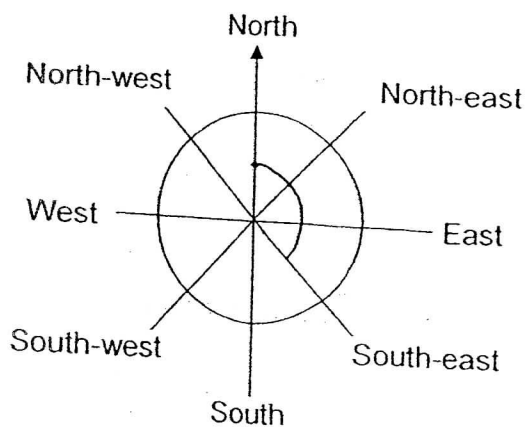
Ans : _____

18. In the number line below, **W** is the midpoint between 0.08 and 0.09.
What is the value of **W**?



Ans : _____

19. After turning 135° anticlockwise, Ken is facing north now.
In which direction was he facing before the turn?



Ans : _____

(Go to the next page)

20. The average test score of a class of 30 pupils was 80. Later, a pupil discovered that his score was wrongly recorded. After correcting his score, the average score of the class became 79.4. What was the difference in the total score of the class before and after the correction?

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Ans : _____

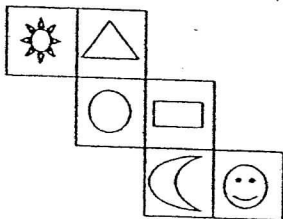
21. Louis took a taxi home at 11.53 a.m. He reached home at 12.18 p.m.
How long did he take to reach home?
Express your answer in the simplest form.

Ans: _____ h

22. A whole number when rounded off to the nearest tens is 250.
What is the greatest possible value of the whole number?

Ans : _____

23. The figure below shows the net of a cube.
What is the shape opposite to "☺" on the cube?

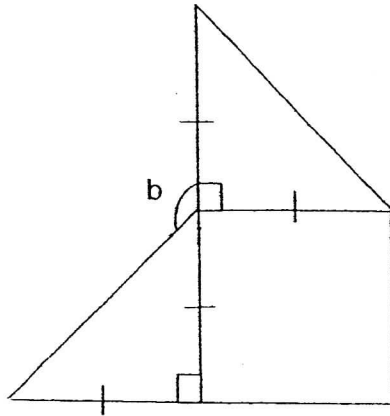


Ans : _____

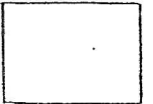
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24. The figure is made up of 1 square and 2 isosceles triangles. Find $\angle b$.

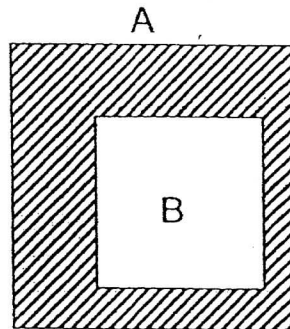
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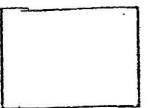
Ans : _____ °



25. The figure is made up of 2 squares of different sizes. The length of square B is $\frac{3}{5}$ the length of square A. What fraction of square A is shaded?



Ans : _____



(Go to the next page)

Questions 26 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. (10 marks)

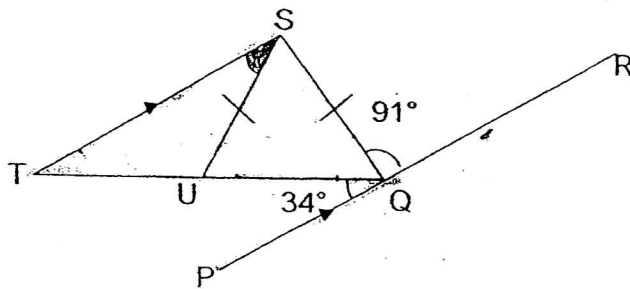
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26. The product of three whole numbers is 594. The greatest number is 11. Find the smallest number.

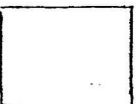
Ans : _____



27. In the figure not drawn to scale, $SU = SQ$, $\angle TQP = 34^\circ$, $\angle SQR = 91^\circ$ and PQR is parallel to TS . Find $\angle TSU$.



Ans : _____°



(Go to the next page)

28. In a food court, the tables are set with either 4 or 5 chairs. If the ratio of the number of tables to the number of chairs is 5 : 23, what fraction of the tables are set with 4 chairs? Express your answer in the simplest form.

Do not w
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Ans : _____

29. Jon had \$15y. He used all his money to buy stickers, which cost \$3 per packet. How many packets of stickers did he buy? Express your answer in terms of y.

Ans : _____

30. In a bowling game, Simon knocked down 40% of the pins with the first ball. He knocked down $\frac{1}{2}$ of the remaining pins with the second ball. What percentage of the pins were left standing then?

Ans ; _____ %

End of Paper

Name: _____ ()

Class : P 6 _____



CATHOLIC HIGH SCHOOL

PRIMARY SIX

PRELIMINARY EXAMINATION 1

MATHEMATICS

PAPER 2

Total Time: 1 h 40 min

Parent's Signature: _____

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

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 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. (10 marks)

Do not
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1. At a sale, the price of a computer was reduced by 40% to \$1200. Find the original price of the computer.

Ans : \$ _____

2. Each box of chocolates cost \$p and each box of sweets cost half as much as each box of chocolates. Find the total cost of 3 boxes of chocolates and 4 boxes of sweets. Express your answer in terms of p.

Ans : \$ _____

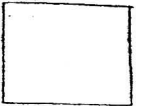
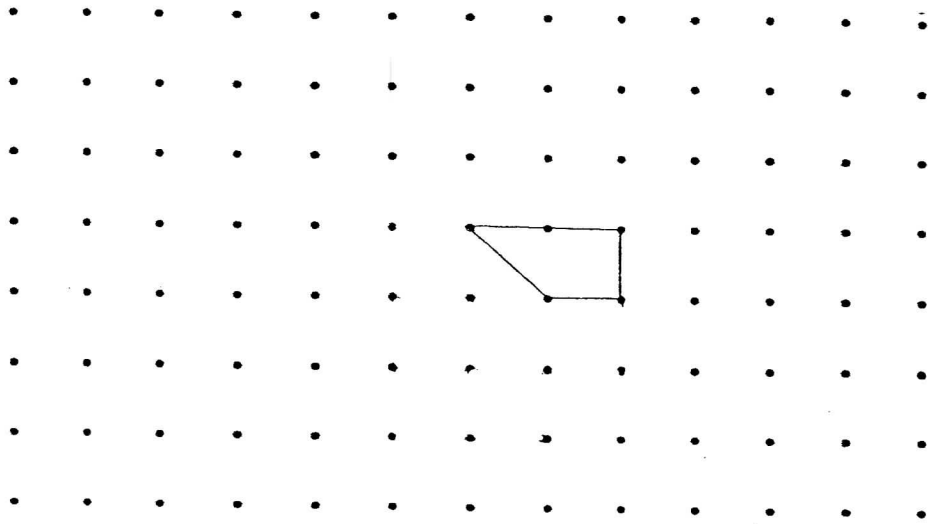
3. The average price of a certain number of books is \$9. When one more book which costs \$33 is included, the average price becomes \$12. Find the total number of books in the end.

Ans : _____

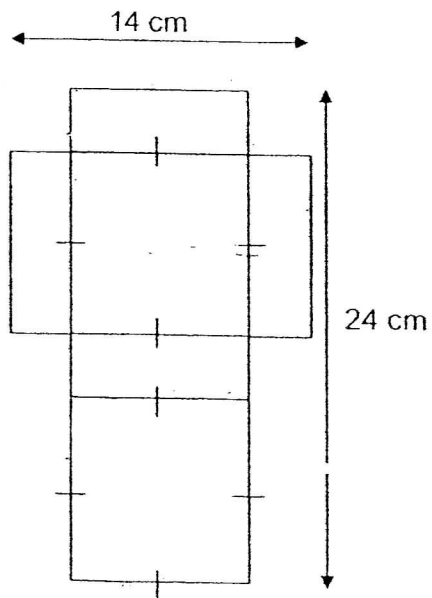
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4. The pattern in the grid shows a unit shape that can be tessellated. Extend the tessellation by drawing four more of the unit shape in the space provided.

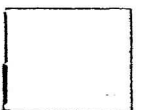
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5. The diagram below shows the net of a cuboid. It is made up of 2 identical squares and 4 identical rectangles. Find the volume of the cuboid.



Ans : _____ cm³

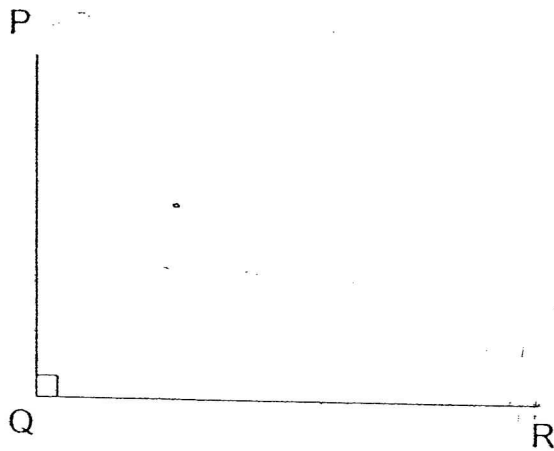


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For questions 6 to 18, show your working clearly in the space provided for each question and write your answers in the spaces provided. The number of marks available is shown in brackets [] at the end of each question or part-question. (50 marks)

Do not
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6. The lines PQ and QR are part of an incomplete trapezium PQRS. Complete drawing the trapezium such that $\angle QRS = 120^\circ$. Measure the line PS. [2]



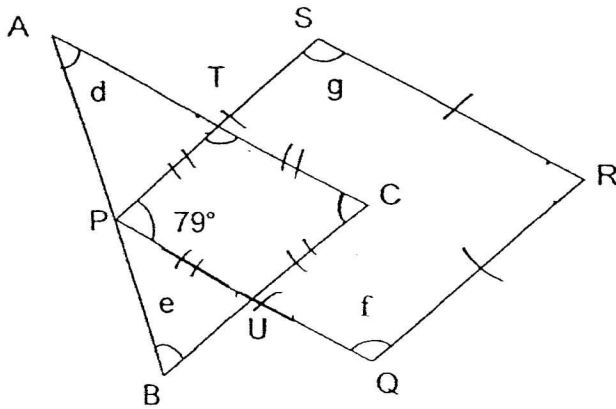
Ans: _____ [1]

7. Auntie Rosnah made some curry puffs for sale. She sold 448 of them in the morning and $\frac{4}{7}$ of the remainder in the afternoon. She was left with 20% of all her curry puffs. How many curry puffs were sold in the afternoon?

Ans: _____ [3]

(Go to the next page)

8. The figure not drawn to scale, is made up of a triangle ABC and two rhombuses, PSRQ and PTCU. $\angle TPU = 79^\circ$. Find $\angle d + \angle e + \angle f + \angle g$. Do not write in this space.



Ans : _____ [3]

9. The table below shows the admission fees to a circus for an adult and a child. There were 50 more children than adults at the circus. If a total of \$5614 was collected, how many children were at the circus?

Adult	\$25
Child	\$8

Ans : _____ [3]

(Go to the next page)

10. The table below shows the number of books read by pupils in Primary 6Q on a particular day. Study it carefully and answer the following questions.

Do n
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No. of children	9	4	15	8	2	1
No. of books	0	1	2	3	4	5

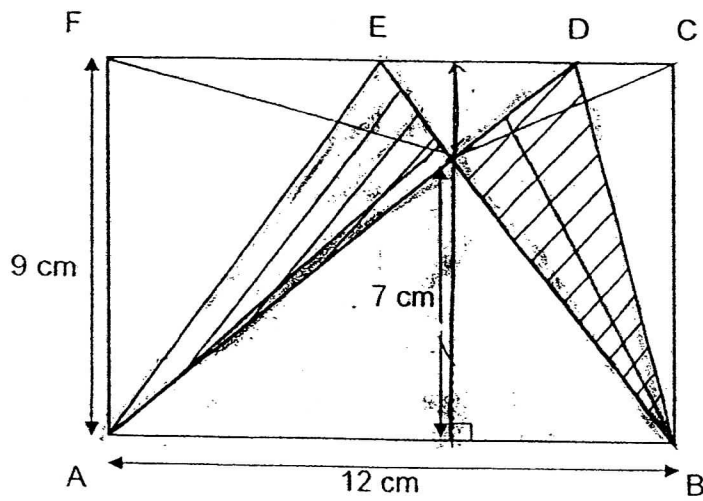
- a) How many pupils were there in Primary 6Q?
- b) What was the average number of books read by pupils in Primary 6Q on that day? Give your answer correct to 1 decimal place.

Ans : a) _____ [2]

b) _____ [2]

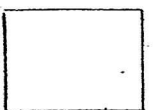
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11. In the figure, ABCF is a rectangle. Find the area of the shaded parts.



Do not write
in this space.

Ans : _____ [3]



(Go to the next page)

12. Roy, Sam and Ted had a sum of money. Roy had 80% of Sam's money. Sam had 60% of Ted's. After Roy gave \$12 to Sam, he had $\frac{5}{7}$ of what Sam had. How much more money did Ted have than Sam in the end?

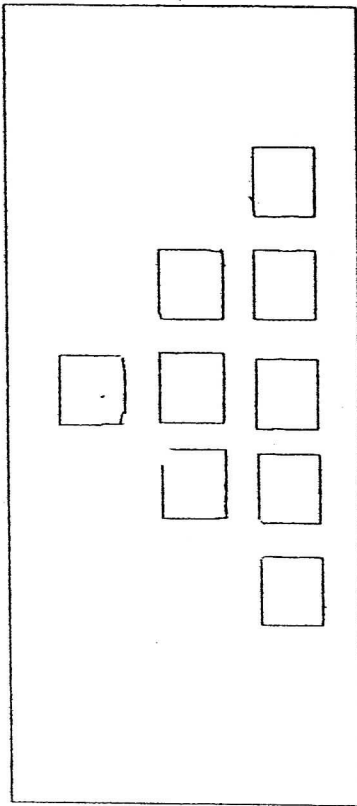
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In this

Ans: _____ [4]

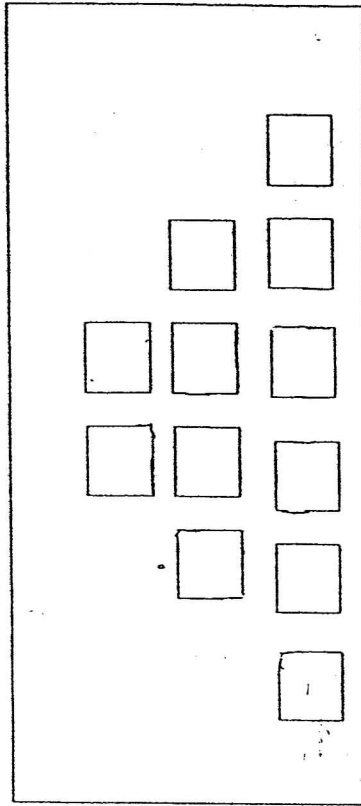
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13. The sequence of patterns is formed with squares. The first three patterns are shown below.

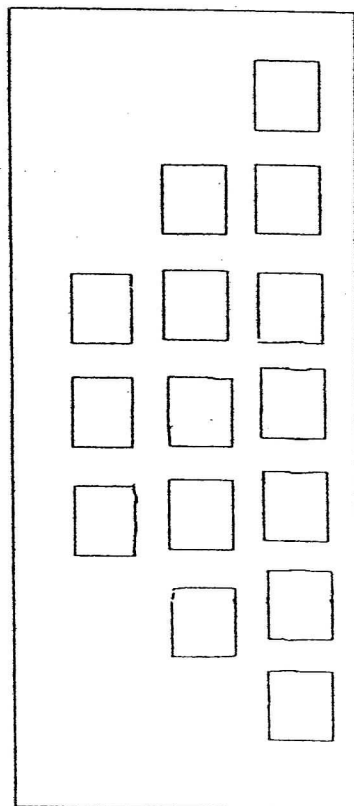
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Pattern 1



Pattern 2



Pattern 3

- a) How many squares are needed in Pattern 10?
- b) Which pattern number contains 669 squares?

Ans: a) _____ [2]

b) _____ [2]

(Go to the next page)

14. Neil and Paul had different sums of money. If Neil spent \$40 each week and Paul spent \$80 each week, Neil would still have \$1 040 left when Paul spent all his money. If Neil spent \$80 each week and Paul spent \$40 each week, Neil would still have \$320 left when Paul had spent all his money. How much money did Paul have at first?

Do not
in this

Ans: _____ [4]

(Go to the next page)

15. Three girls, Eileen, Lisa and Pamela, had some savings. Pamela had thrice Lisa's savings. Eileen's savings was \$374 less than Pamela's savings. Eileen's savings was $\frac{5}{9}$ as much as Lisa's savings. How much savings did Lisa have?

Do not write
in this space.

Ans: _____ [4]

(Go to the next page)

16. Jerry bought four times as many pencils as notebooks and spent a total of \$21.60. He spent \$2.40 more on the notebooks than the pencils. Given that a notebook costs \$3.20 more than a pencil, find the cost of a pencil.

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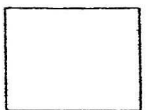
Ans: _____ [5]

(Go to the next page)

17. Ms Lee baked 24 more chocolate muffins than banana muffins. After she gave away $\frac{1}{6}$ of the chocolate muffins and $\frac{3}{8}$ of the banana muffins, she was left with 35 more chocolate muffins than banana muffins. How many chocolate muffins did she bake at first?

Do not write
in this space.

Ans : _____ [5]



(Go to the next page)

18. At first, Ravi had \$200 more than Vincent. He gave 40% of his money to Vincent. Vincent then gave 25% of his money to Ravi. In the end, Vincent had \$68 more than Ravi. How much did Vincent give Ravi?

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Ans : _____ [5]

- End of Paper -

ANSWER SHEET

EXAM PAPER 2011

SCHOOL : CATHOLIC HIGH
SUBJECT : PRIMARY 6 MATHEMATICS

TERM : PRELIMINARY 1

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

- 16) 3.86 17) $13a+6$ 18) 0.085 19) South-east 20) 18
- 21) $5/12h$ 22) 254 23) 0 24) 135° 25) $16/25$
- 26) 6 27) 21° 28) $2/5$ 29) 5y 30) 30%

Paper 2

1) $60\% \rightarrow \$1200$

$$10\% \rightarrow \$1200 \div 6 = \$200$$

$$\text{Original price} \rightarrow \$200 \times 10 = \$2000$$

2) 1 box of chocolates $\rightarrow \$P$

$$1 \text{ box of sweets} \rightarrow \$P \div 2 = \$(P/2)$$

$$3 \text{ boxes of chocolates} \rightarrow \$P \times 3 = \$3P$$

$$4 \text{ boxes of sweets} \rightarrow \$(P/2) \times 4/1$$

$$= \$(4P/2) = \$2P$$

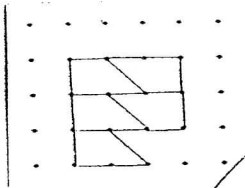
$$\text{Total cost} \rightarrow \$2P + \$3P = \$5P$$

3) difference between old and new average $\rightarrow \$12 - \$9 = \$3$

$$\text{Total number of books in the end} \rightarrow (\$33 - \$12) \div \$3 + 1$$

$$= \$21 \div \$3 + 1 = 7 + 1 = 8 \text{ books.}$$

4)



5) 1 side square $\rightarrow 24\text{cm} - 14\text{cm} = 10\text{cm}$

$$\text{Volume} \rightarrow 10\text{cm} \times 10\text{cm} \times 12 = 200\text{cm}^3$$

6) 9.4cm

7) 3 units $\rightarrow 1/5$

$$1 \text{ unit} \rightarrow 1/5 \div 3 = 1/5 \times 1/3 = 1/15$$

$$12/15 - 4/5 = 8/15$$

$$8/15 \rightarrow 448$$

$$1/15 \rightarrow 448 \div 8 = 56$$

$$56 \times 4 = 224 \text{ curry puffs.}$$

8) $\angle d + \angle e \rightarrow 180^\circ - 79^\circ = 101^\circ$
 $\angle d + \angle e + \angle f + \angle g = 101^\circ + 202^\circ = 303^\circ$

9) Children Extra $\rightarrow 50 \times \$8 = \400
1 set of Adult + Children $\rightarrow \$25 + \$8 = \$33$
 $\$5614 - \$400 = \$5214$
Sets of Adult and children $\rightarrow \$5214 \div \$33 = 158$
 $158 + 50 = 208$

10) a) 39 pupils b) 1.8 books

11) 24 cm² 12) \$148

13) a) 36 squares b) pattern number

14) 3 units $\rightarrow \$1040 - \$320 = \$720$
1 unit $\rightarrow \$720 \div 3 = \240
Paul at first $\rightarrow \$240 \times 2 = \480

15) $9u \times 3 = 27u$
 $27u - 5u = 22u$
22 units $\rightarrow \$374$
1 unit $\rightarrow \$374 \div 22 = \17
Lisa have $\rightarrow \$17 \times 9 = \153

16) \$0.80

17) 96

18) \$538