CATHOLIC HIGH SCHOOL

END-OF-YEAR EXAMINATION

MATHEMATICS

PRIMARY 5

PAPER 1

(BOOKLET A)

Name : _____ ( )

Class: Primary 5 _____

Date: 30 October 2015

Total Time for Booklets A and B: 50 min

15 questions

20 marks

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 13 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 442 297 to the nearest thousand.

   (1) 400 000

   (2) 440 000

   (3) 442 000

   (4) 443 000

---

2. Which digit in 59.04 is in the tenth place?

   (1) 0

   (2) 5

   (3) 9

   (4) 4

---

3. What is the sum of 5 hundreds, 20 tenths and 3 hundredths?

   (1) 500.023

   (2) 500.230

   (3) 502.030

   (4) 502.300

---

4. Which one of the following has the same value as $1\frac{2}{5}$?

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

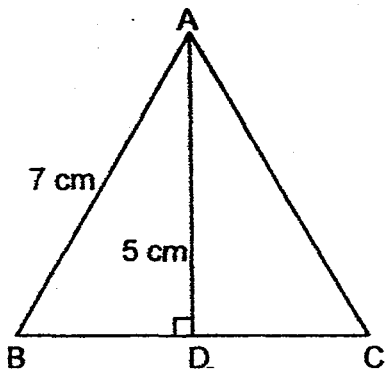
   (2) $1-\frac{2}{5}$

   (3) $\frac{3}{5}+\frac{4}{5}$

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

(Go on to the next page)

5. In the figure below, triangle ABC is an equilateral triangle. Find the perimeter of triangle ABC.



(1) 12 cm

(2) 15 cm

(3) 17.5 cm

(4) 21 cm

---

6. In a class of 40 pupils, 24 are girls.
What is the ratio of the number of girls to the number of boys?

(1) 2 : 3

(2) 3 : 2

(3) 3 : 5

(4) 2 : 5

---

7. Express 0.4 as a percentage.

(1) 4%

(2) 40%

(3) 0.04%

(4) 0.004%

(Go on to the next page)

8. Jane used $\frac{3}{4}$ kg of flour to make bread and Alice used $\frac{1}{3}$ kg of flour to make bread. How many more kilograms of flour did Jane use than Alice?

(1) $\frac{1}{4}$ kg

(2) $\frac{5}{12}$ kg

(3) $1\frac{1}{12}$ kg

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

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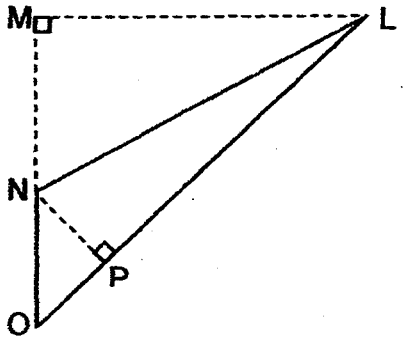
9. Given that NO is the base of triangle LNO, find the height of triangle LNO.



(1) LN

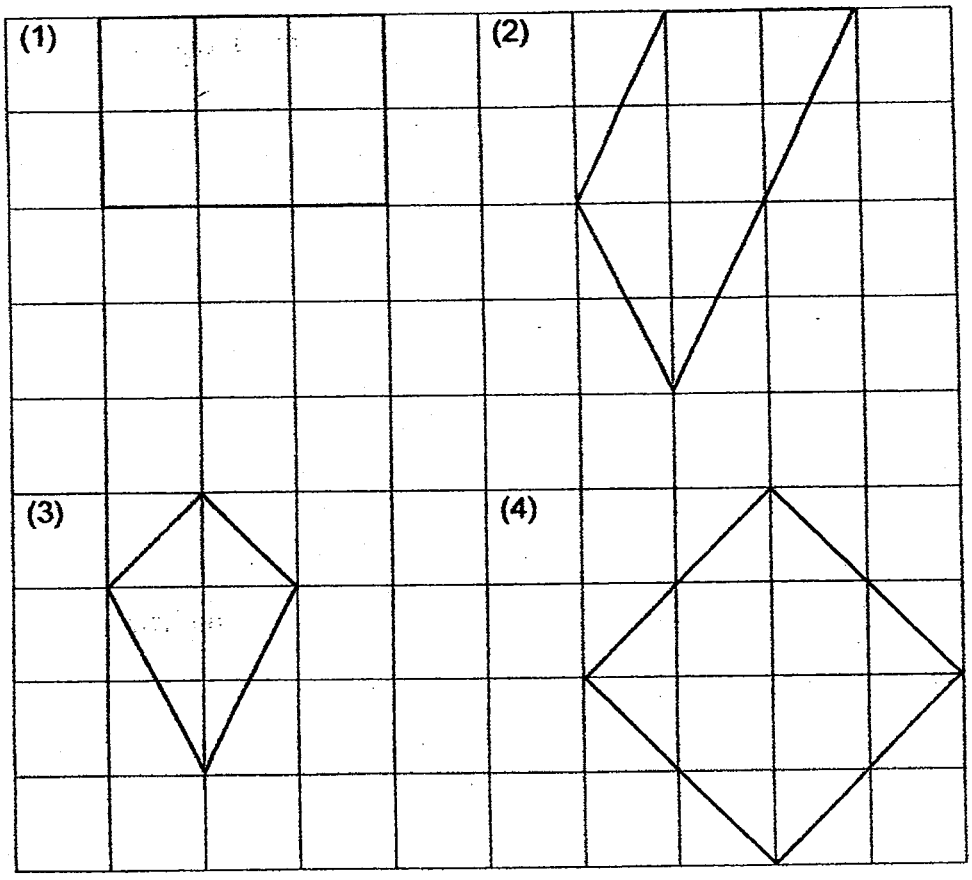
(2) NP

(3) LM

(4) LO

(Go on to the next page)

10. Which one of the following quadrilaterals is an example of a rhombus?



11. Find the value of $22 - 5 \times 3 + 18 \div 3$.

(1) 10

(2) 13

(3) 23

(4) 57

12. Mrs Tan had 20 green apples and 10 red apples. She bought 10 more red apples. Express the number of red apples as a percentage of the total number of apples she has now.

(1) 20%

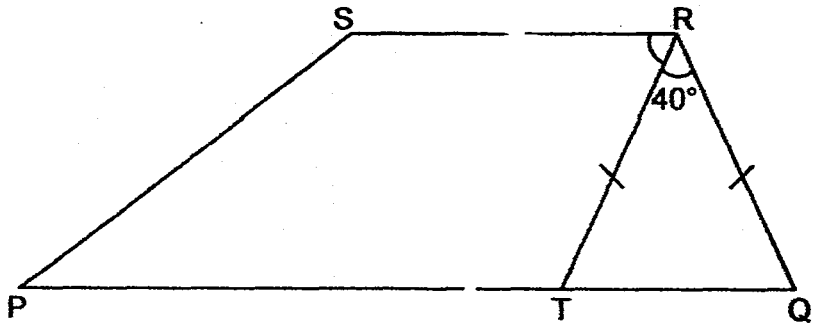
(2) 25%

(3) 50%

(4) 75%

(Go on to the next page)

13. In the figure below, PQRS is a trapezium and RT = RQ. SR is parallel to PQ. Find ∠SRT.



(1) 30°

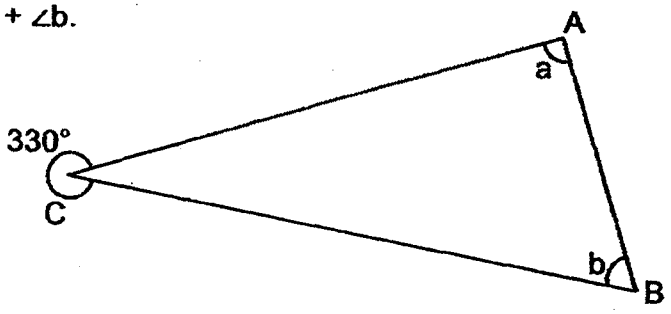
(2) 70°

(3) 110°

(4) 140°

---

14. In the figure below, ABC is a triangle. Find ∠a + ∠b.



(1) 30°

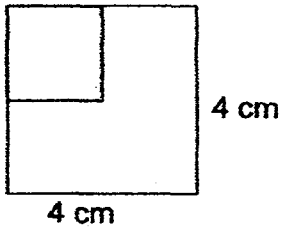
(2) 75°

(3) 120°

(4) 150°

(Go on to the next page)

15. In the figure below, the shaded area is cut from a square of side 4 cm. The ratio of the shaded area to the area of the square is 1 : 4. Find the unshaded area.



(1) 1 cm^2

(2) 4 cm^2

(3) 12 cm^2

(4) 16 cm^2

END OF BOOKLET A

CATHOLIC HIGH SCHOOL

END-OF-YEAR EXAMINATION

MATHEMATICS

PRIMARY 5

PAPER 1

(BOOKLET B)

Name : _____ ( )

Class: Primary 5 _____

Date: 30 October 2015

Total Time for Booklets A and B: 50 min

15 questions

20 marks

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.

Booklet A and B consist of 13 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. All diagrams are not drawn to scale. (10 marks)

Do not write in this space

16. Write the following in figures.

One million, nine hundred and twelve thousand and twenty-eight

Ans: _____

17. Find the value of 200×0.5.

Ans: _____

18. Find the value in the box.

$\square : 4 = 9 : 6$

Ans: _____

(Go on to the next page)

19. What is 1.05 litres in millilitres?

Do not write in this space.

Ans: _____ mℓ

20. Express 50 cm as a fraction of 5 m.
Express your answer as a fraction in the simplest form.

Ans: _____

21. The total age of 4 boys is 48 years old.
What is the average age of this group of friends?

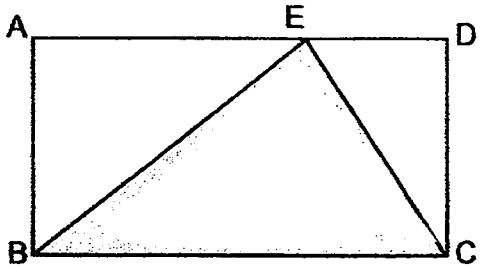
Ans: _____ years

Do not write in this space.

22. Mary bought $\frac{2}{3}$ m of cloth. She divided the cloth into 6 equal pieces.
What is the length of each piece of cloth?

Ans: _____ m

23. The figure below is made up of rectangle ABCD and triangle BEC.
The area of rectangle ABCD is 64 cm^2.
Find the area of the unshaded triangles.

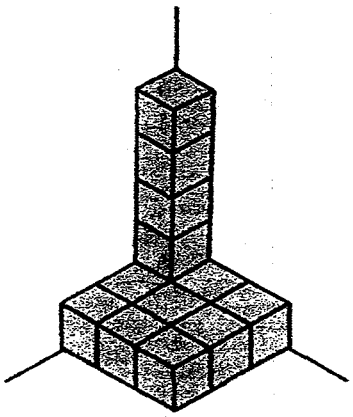


Ans: _____ cm^2

(Go on to the next page)

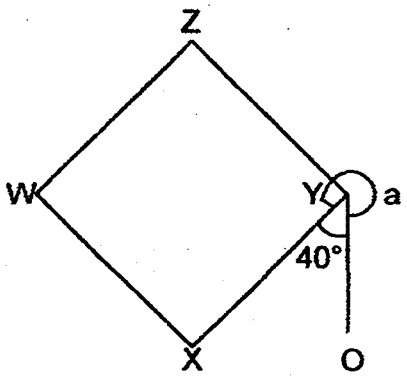
Do not write in this space.

24. How many unit cubes are there in the following solid?



Ans: _____ unit cubes

25. In the figure below, WXYZ is a square.
$\angle XYO = 40°$. Find $\angle a$.



Ans: _____ °

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. All diagrams are not drawn to scale (10 marks)

Do not write in this space.

26. There were 850 people in a concert. 20% of the people were seated and the rest were standing. How many people were standing?

Ans: _____

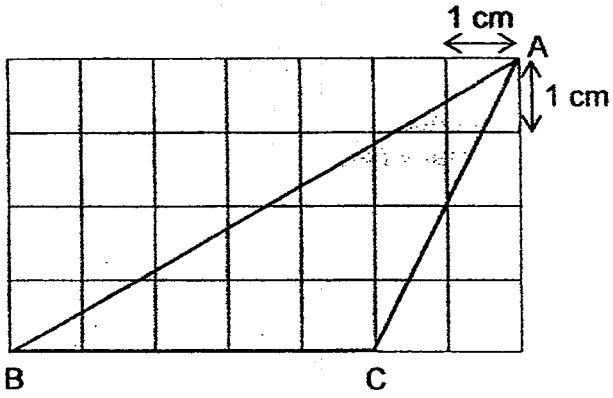
27. Tom ran a distance of $\frac{5}{6}$ km. John ran $\frac{1}{2}$ of the distance that Tom ran. How many kilometres did John run?

Ans: _____ km

(Go on to the next page)

Do not write in this space.

28. In the square grid below, there is a shaded figure ABC.
Find the area of the shaded figure ABC.



Ans: _____ cm^2

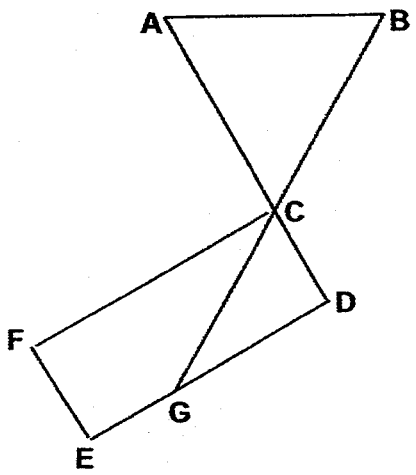
29. $\frac{2}{7}$ of Adam's money is equal to $\frac{1}{5}$ of Benjamin's money. Benjamin had $21 more than Adam. How much money does Benjamin have?

Ans:$ _____

(Go on to the next page)

30. In the figure below, ACD and BCG are straight lines. ABC is an equilateral triangle and CDEF is a rectangle. Find ∠FCG.

Do not write in this space.



Ans: _____°

Total marks for questions 26 to 30

END OF BOOKLET B
END OF PAPER 1

CATHOLIC HIGH SCHOOL

END-OF-YEAR EXAMINATION

MATHEMATICS

PRIMARY 5

PAPER 2

Name : _____ ( )

Class: Primary 5 _____

Date: 30 October 2015

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.

Write your answers in this booklet.

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

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. The ratio of the number of boys to the number of girls in a school is 8 : 9. There are 567 girls. What is the total number of pupils?

Ans: _____

2. Ali collected 528 stamps. He gave 483 of them to his sister. Ali kept his remaining stamps equally in 5 albums. How many stamps were there in each album?

Ans: _____

(Go on to the next page)

3. Alan is 1.52 m tall. Ben is 22 cm shorter. What is their average height? Express your answer in metres.

Do not write in this space.

Ans: _____

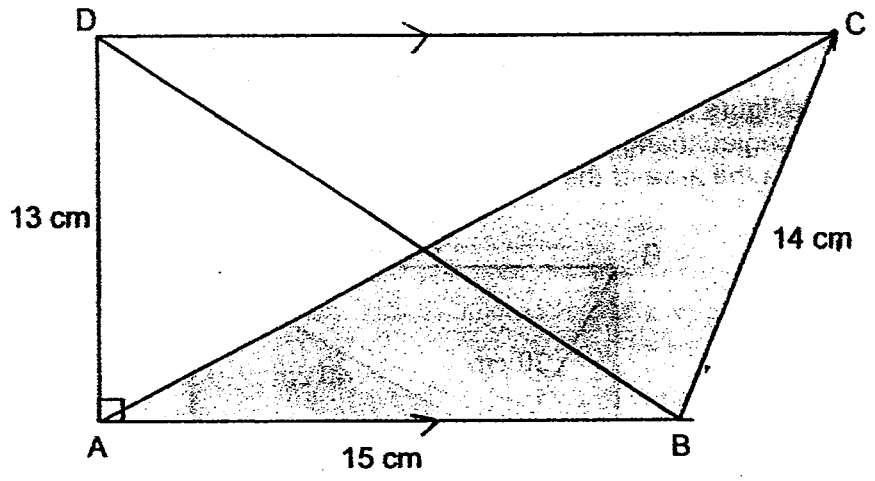
4. Janice spent 20% of her allowance on Monday. On Tuesday, she spent 15% of her allowance. What percentage of her allowance did she have left?

Ans: _____%

(Go on to the next page)

5. In the figure below, DC is parallel to AB. Find the area of the shaded triangle.

Do not write in this space.



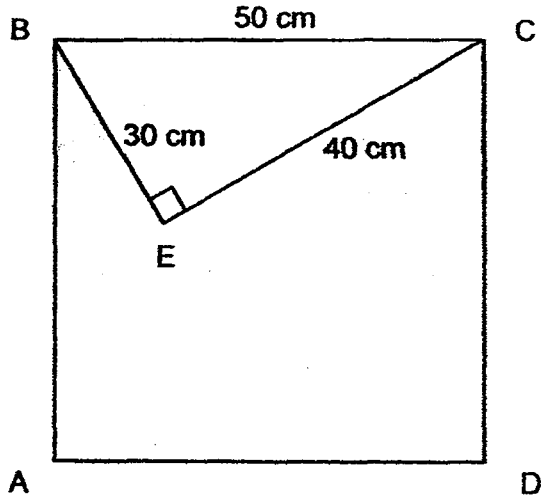
Ans: _____ cm^2

(Go on to the next page)

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. In the figure below, ABCD is a square of sides 50 cm and BCE is a right-angled triangle with sides measuring 30 cm, 40 cm and 50 cm. What is the area of the shaded part?



Ans: [3]

(Go on to the next page)

7. The ratio of the number of red marbles to the number of blue marbles in a box is 1 : 3 at first. After 12 blues marbles were removed and 12 red marbles were added into the box, the number of red marbles was thrice the number of blue marbles. How many blue marbles were there in the box at first?

Do not write in this space.

Ans: _____ [3]

(Go on to the next page)

8. Alex and Bryan had the same amount of money at first. After Alex gave away \$50 and Bryan received \$60, Alex's money was $\frac{1}{3}$ of Bryan's money. How much did Alex have at first?

Do not write in this space.

Ans: _____ [3]

(Go on to the next page)

9. The usual price of a pair of shoes is $150. Ravi bought the pair of shoes at a discount of 18%. In addition, he had to pay 7% GST on the discounted price. How much did he pay for the pair of shoes in total?

Do not write in this space.

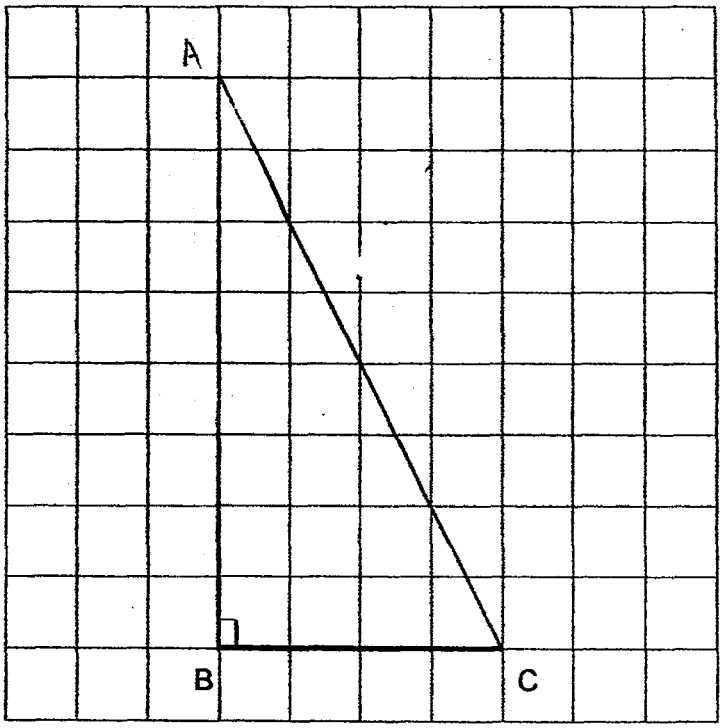
Ans: _____ [3]

(Go on to the next page)

10. **In the square grid below, a side of triangle ABC has been drawn.**

a) **Complete the drawing of the triangle ABC so that AB is twice the length of BC and ∠ABC is 90°.**

b) Measure and write down ∠ACB.



[2]

Do not write in this space.

Ans (b):_____ [1]

(Go on to the next page)

11. Andy, Benny and Carl had a total of $540. Benny had $30 more than Andy. Carl had thrice as much money as Benny. How much money did Andy and Benny have altogether?

Do not write in this space.

Ans: _____ [4]

12. Stacey spent $\frac{2}{7}$ of her money on some muffins and $\frac{3}{10}$ of her remaining money on another 9 muffins. How many muffins did she buy in total?

Do not write in this space.

Ans: _____ [4]

(Go on to the next page)

13. Bala bought some apples and bananas. 72% of the fruits were apples. He used 48 apples to make apples pies and was left with twice as many apples as bananas. How many fruits did Bala have at first?

Do not write in this space.

Ans: _____ [4]

(Go on to the next page)

14. **The total cost of 3 buns and 4 hot dogs is $9.60. The total cost of 5 buns and 8 hot dogs is $18. Find the cost of a dozen buns.**

Do not write in this space.

Ans: _____ [4]

(Go on to the next page)

15. A box with 4 identical balls has a mass of 2.4 kg. When 2 more such balls are added into the box, the mass becomes 3.34 kg. What is the mass of the box when it is empty?

Do not write in this space.

Ans: _____ [4]

(Go on to the next page)

16. 1 almond cookie cost $5. 1 chocolate cookie cost $3. Jenny paid $102 for both almond cookies and chocolate cookies. She bought 4 times as many chocolate cookies as almond cookies.
(a) How many cookies did she buy altogether?
(b) How much more money did she spend on chocolate cookies than almond cookies?

Do not write in this space.

Ans: (a) _____ [3]

(b) _____ [2]

(Go on to the next page)

Do not write in this space.

17. Bill spent $\frac{1}{6}$ of his money and an additional \$11 on food. He then spent $\frac{2}{3}$ of the remaining money and an additional \$7 on books. Given that he was left with \$16, how much money did Bill have at first?

Ans: _____ [5]

(Go on to the next page)

18. Belle started a savings plan by putting 2 coins in her piggy bank every day. Each coin was either a 20¢ or 50¢ coin. Her mother also put in a $1 coin in her piggy bank every 5 days. The total value of the coins after 190 days was $192.

(a) How many coins were there altogether?

(b) How many of the coins were 50¢ coins?

Do not write in this space.

Ans: (a) _____ [2]

(b) _____ [3]

END OF PAPER.
PLEASE CHECK YOUR WORK CAREFULLY.

EXAM PAPER 2015
LEVEL : PRIMARY 5
SCHOOL : CATHOLIC HIGH SCHOOL
SUBJECT : MATHEMATICS
TERM : SA2

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

Q16. 1 912 028 Q17. 100➔ 200x 0.5 = 200 x ½=100

Q18. 6➔ ÷3 9:6÷3 = x 2 3:2x2, = 6:4

Q19. 1050mlitre➔ 1.05litre = 1050mlitre

Q20. $\frac{1}{10}$ ➔$\frac{80}{500} = \frac{1}{10}$

Q21. 12 years➔ 48÷4=12

Q22. $\frac{1}{9}$m ➔$\frac{1}{6}$ x $\frac{2}{3}$m = $\frac{2}{18}$m = $\frac{1}{9}$m

Q23. 32cm^2 ➔Unshaded area = shaded area = $\frac{1}{2}$ x 64cm^2 = 32cm^2

Q24. 13 unit cubes
Level I -1cube, Level 2 – 1 cubes, Level 3 – 3-1cubes, Level 4-1 cubes, Level 5-9 cubes .

Q25. 230°➔360° – 90° – 40° = 230°

Q26. 680
100% - 20% = 80%,
No. of standing people = 80% x 850 = $\frac{80}{100}$ x 85cents = 680

Q27. $\frac{5}{12}$km➔ Distance that John ran = $\frac{1}{2}$ x $\frac{5}{6}$km = $\frac{1}{2}$ x $\frac{10}{12}$km = $\frac{5}{12}$km

Q28. 10cm^2➔ Shaded area = ½ x (5cm x 4cm) = ½ x 20cm^2 = 10cm^2

Q29. $70
$\frac{2}{7}$ of Adam's money = $\frac{1}{5}$ of Benjamin's money = $\frac{2}{10}$ of Benjamin's money,
10u – 7u = 3u = $21, 10u = $\frac{10}{3}$ x $21 = $7 = $70

Q30. 30°
∡ACB = 60°,
∡FCD = ∡ACB (vertical opp ∡s) = 60°, ∡cdg = 90°,
∡fcg = ∡cgd = 180° − 60° − 90° = 30° (ALT ∡s)

Q1 1071➔ 9U =567, 1u=567÷9, 8u+9u=17u=17x63=1071

Q2. 9 ➔No. of stamps in 5 albums = 528-483 = 45, no. of stamps in album = 45 ÷ 5 = 9

Q3. 1.41m➔ Ben's height = 152m – 22cm = 152cm – 22cm = 130cm,
Average height = $\frac{130cm+152cm}{2} = \frac{282cm}{2}$ = 141cm = 1.41m

Q4. 65% ➔Percentage of allowance left = 100% - 20% = 65%

Q5. 97.5cm²➔ Area of triangle = ½ x (15cm x 13cm) = ½ x 195cm² = 97.5cm²

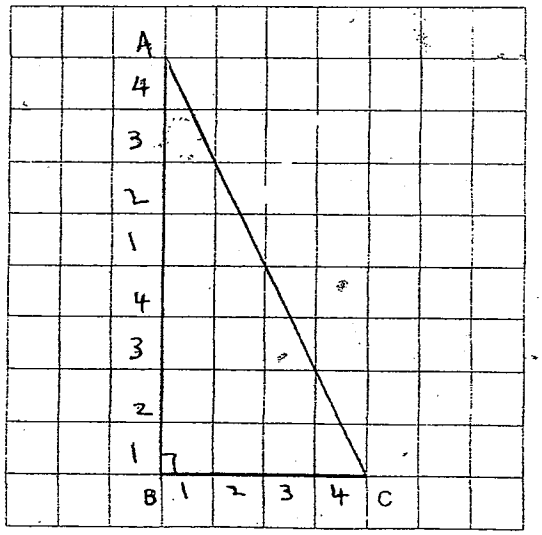
Q6. 1900cm²
Area of square = 50cm x 50cm = 2500cm²
Area of triangle = ½ x 40cm x 30cm = 20cm x 30cm = 600cm²
Shaded area = 2500cm² – 600cm² = 1900cm².
The area of the shaded part is 1900cm²

Q7.18 2u=12, 1u=12÷2=6, 3u=3x6=18

Q8. $105 2u=$50 x $60=$110, 1u=$110÷2=$55, Alex's money at first =$55 +$50=$105

Q9. $131.61
100% - 18%=82%,
Price after discount = 82% x $150 = $123,
Price after GST = 107% x $123 = $131.61.

Q10a. **SEE PICTURE** Q10b. 64° ∠ACB is 65°



Q11. $198
5u = $540 – (4 x $30) = $540 - $120 = $420
2u = ⅖ x $420 = 4168
Andy's money + Benny's money = $168 +$30=$198

Q12. 21

$\frac{1}{10}$ of remaindere = 9 ÷3=3 muffins bought,

$\frac{10}{10}$ of remainder = 10 x 3 = 30 muffins bought,

$\frac{2}{7}$ *of total* $= \frac{2}{5}$ x 30 = 12 muffins bought.

Total muffins bought = 12 + 9 = 21

Q13. 300

100u – 72u = 28u

72u -56u = 16u = 48

100u = $\frac{100}{10}$ x 48 = 300

Q14. $14.40

Cost of 3 buns + 4 hot dogs = $9.60

Cost of 5 buns + 8 hot dogs = $18

Cost of 6 buns + 8 hot dogs = 2 x $9.60 = $19.20

Cost of 1 bun = $19.20 - $18 = $1.20

Cost of 12 buns = 12 x $1.20 = $14.40

Q15. 0.52kg

Mass of 2 balls = 3.34kg – 2.4kg =0.94kg

Mass of 4 balls = 2 x 0.94kg = 1.88kg

Mass of box = 2.4kg -1.88lg = 0.52kg

Q16.a. 30 Q16b. 442

Value of 1 group =$5+(4 x $3) = $5 + 412 = $17

No. of groups = 102 ÷ 17 = 6

No. of cookies = 6 x 5 = 30

No. of almond cookies = 30÷5 = 6

No. of chocolate cookies = 30 – 6 = 24

Cost of almond cookies = 6 x $5 = $30

Cost of chocolate cookies = 24 x $3 = $72

Difference = $72 - $30 = $42

Q17 496

⅓ of remaining = $7 + $16 = $23

Remaining = 3 x $23 = $69

⅚ of total = $69 +$11 = $80

Total = $\frac{6}{5}$ x $80 = $96

Q18a. 418 Q18b. 260
190 ÷5= 38
No. of coins = 92 x 190) +38 = 380 +38 = 418
Assume all are 20¢ coins = 380 x $0.20= 476
Money given by Belle's mother = 38 x $1 = $38
$192 - $38 = $154
Total difference = 4154 - $76 = $78
Difference between one 50¢ coin and one 20¢ coin = $0.50 - $0.20 = $0.30
No. of 50¢ coins = 78 ÷ $0.30 = 260

THE END