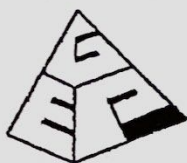


Name: [REDACTED] Class: Primary 4 [REDACTED]
 School: Catholic High School Register No.: [REDACTED]



GIFTED EDUCATION PROGRAMME



ANGLO-CHINESE
SCHOOL
(PRIMARY)



CATHOLIC
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PRIMARY
SCHOOL



RAFFLES
GIRLS'
PRIMARY
SCHOOL



ROSYTH
SCHOOL



ST. HILDA'S
PRIMARY
SCHOOL



TAO NAN
SCHOOL

END-OF-YEAR EXAMINATION MATHEMATICS PRIMARY 4 (GEP) Part 1

Monday 24 October 2016

1 h

INSTRUCTIONS TO CANDIDATES

1. Write your name, class, school and register number above.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.

Section	Score
A	15 /15
B	30 /30
Total	45 /45

24 OCT 2016

This paper consists of 14 printed pages (including this cover page).

SECTION A

Questions 1 to 15 carry 1 mark each. Write your answers clearly in the spaces provided. Give your answers in the units stated. All diagrams are not drawn to scale, unless otherwise stated.

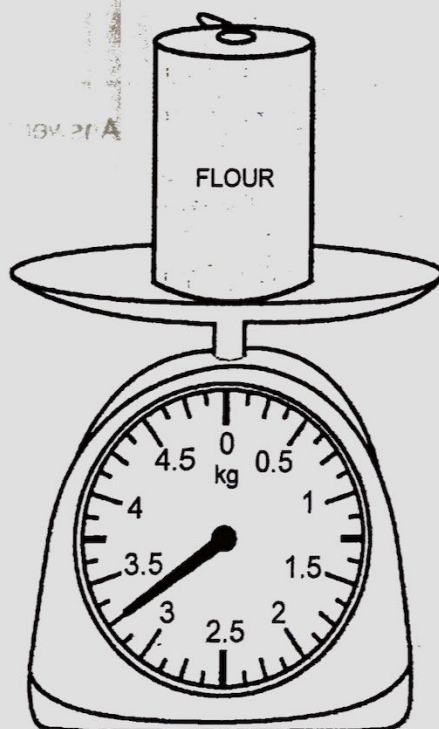
(15 marks)

- 1 Round 6896 to the nearest ten.

Answer:

6900

- 2 What is the mass of the tin of flour as shown on the weighing pan as shown below? Leave your answer as a decimal.



Answer:

3.25

kg

3 How many prime numbers are less than 19?

~~2~~ 3 5 7 9 11 13 15 17 ~~19~~

Answer: 7 prime numbers

4 Find the missing number in the box.

$$5\frac{1}{2} - \boxed{?} = 1\frac{7}{8}$$

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

$$5\frac{4}{8} - \frac{?}{8} = 1\frac{7}{8}$$

$$\frac{44}{8} - \frac{29}{8} = \frac{15}{8}$$

$$5\frac{4}{8} - 1\frac{7}{8} = \frac{44}{8} - \frac{15}{8} = \frac{29}{8} = 3\frac{5}{8}$$

Answer: 29

5 In 467.98, the digit '9' is in the _____ place.

Answer: tenths

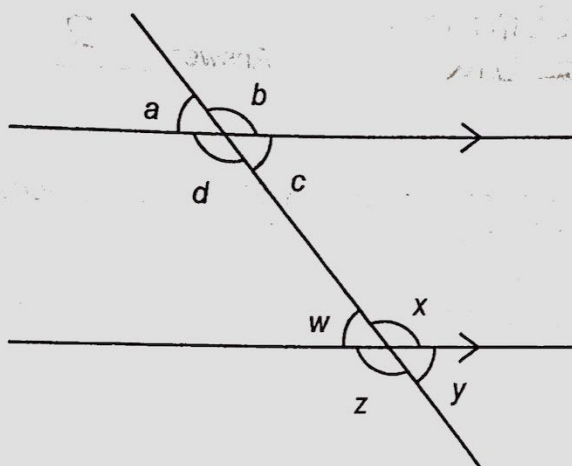
6 Round 19.995 to the nearest 2 decimal places.

Answer: 20.00

- 7 The daily salaries of six employees at a restaurant are \$56, \$48, \$56, \$48, \$56 and \$60. What is the mode of these six salaries?

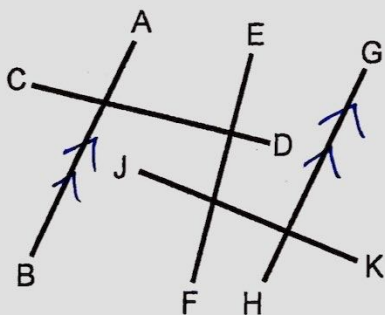
Answer : \$ 56

- 8 Write down a pair of alternate angles in the given diagram.



Answer : $\angle$ b and $\angle$ z

- 9 Identify a pair of parallel lines in the figure below.



Answer : AB // GH

- 10 A rod is cut into 3 pieces. The longest piece is half the length of the original rod while the shortest piece is $\frac{1}{10}$ of the original rod. The length of the remaining piece is $\frac{4}{5}$ m. How long is the original rod?

10u

1u 4u 5u
s r l

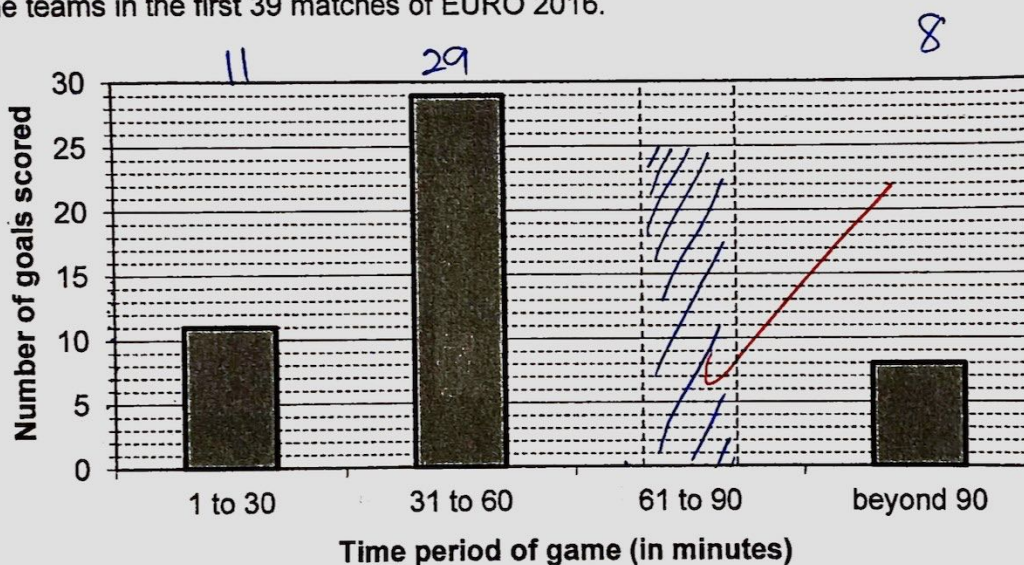
$$4u = 800m$$

$$1u = 200m$$

$$10u = 2000m = 2m$$

Answer: 2 m

- 11 The graph shows the number of goals scored during the different time periods by all the teams in the first 39 matches of EURO 2016.



A total of 73 goals were scored. Complete the graph by plotting the number of goals during the 61st to 90th minute period.

$$\begin{aligned} 29 + 11 &= 40 \\ 40 + 8 &= 48 \\ 73 - 48 &= 25 \end{aligned}$$

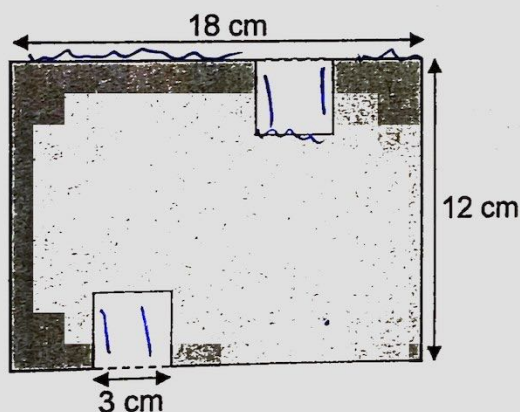
- 12 Study the table below. The numbers are arranged in four columns A, B, C and D in a particular pattern as shown. In which column will the number 30 appear?

^{R2} A	^{R0} B	^{R6} C	^{R4} D
98	96	94	92
90	88	86	84
82	80	78	76
74	72	:	:
:	:	:	:

$$30 \div 8 = 3R6$$

Answer : Column C

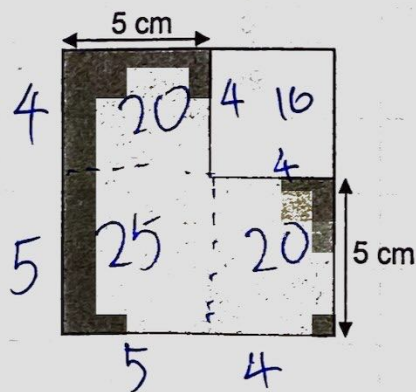
- 13 Two 3-cm squares are cut from a rectangle measuring 18 cm by 12 cm as shown in the figure below. Find the perimeter of the remaining figure.



$$\begin{aligned}
 &18 + 12 + 18 + 12 \\
 &= 60 \\
 &3 + 3 + 3 + 3 = 12 \\
 &60 + 12 = 72
 \end{aligned}$$

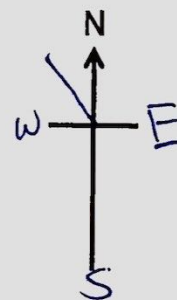
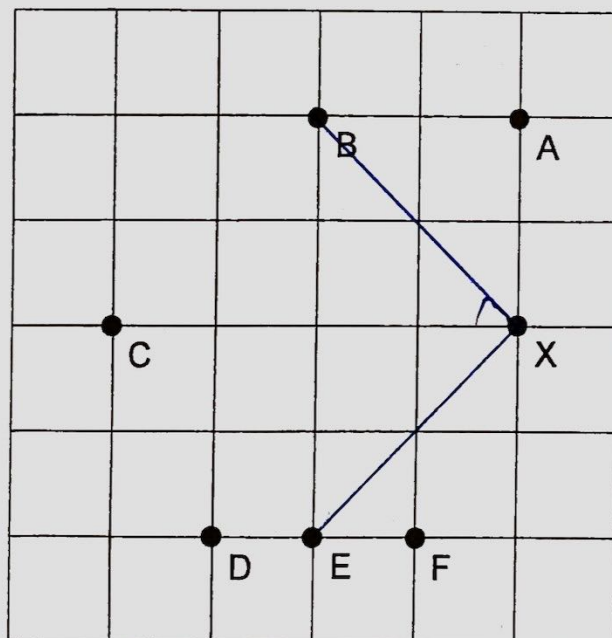
Answer : 72 cm

- 14 The figure below is made up of 2 overlapping squares. The area of the shaded part is 65 cm^2 . What is the length of the smaller square?



Answer : 4 cm

- 15 Peter is at Point X and he is facing North-West. Which point will Peter be facing after making an anti-clockwise 90° turn?



Answer : Point E

SECTION B

Questions 16 to 30 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. Give your answers in the units stated. All diagrams are NOT drawn to scale, unless otherwise stated. Marks will be awarded for relevant working.

(30 marks)

- 16 What is the 10th common multiple of 10 and 12?

10 : 10 20 30 40 50 (60)

12 : 12 24 36 48 (60)

1st 60

2nd 120

3rd 180

4th 240

5th 300

6th 360

7th 420

8th 480

9th 540

10th 600

600 is the 10th common multiple of 10 and 12.

Answer : 600

- 17** Fill in the blanks below to complete the number pattern.

8, 7.995, 7.99, 7.985, ~~7.98~~, 7.975, 7.97

$$8 - 7.995 = 0.005$$

$$7.975 - 0.005 = 7.97$$

$$7.995 - 7.99 = 0.005$$

$$7.99 - 0.005 = 7.985$$

- 18** Arrange the numbers below in ascending order.

$$\frac{3}{2}, 0.37, 0.307, \frac{3}{8}$$

$$\begin{array}{r} 125 \\ 3 \overline{) 375} \\ \underline{375} \\ 0 \end{array}$$

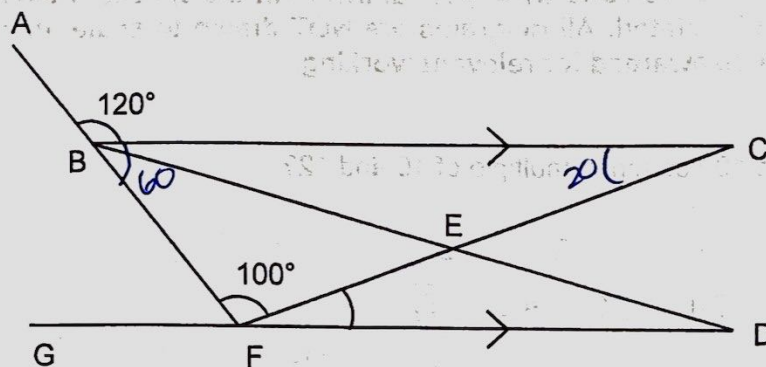
$$\frac{3}{2} = 1,5$$

$$\frac{3}{8} = 0.375$$

0.307, 0.370, 0.375, 1.500

Answer: 0.307 0.370 $\frac{3}{8}$ ~~$\frac{5}{2}$~~

- 19 In the diagram, $\angle ABC$ is 120° and $\angle BFC$ is 100° . BC is parallel to GD .
 AF , CF and BD are straight lines. Find $\angle CFD$.



$$180 - 120 = 60$$

$$180 - 100 = 80$$

$$80 - 60 = 20$$

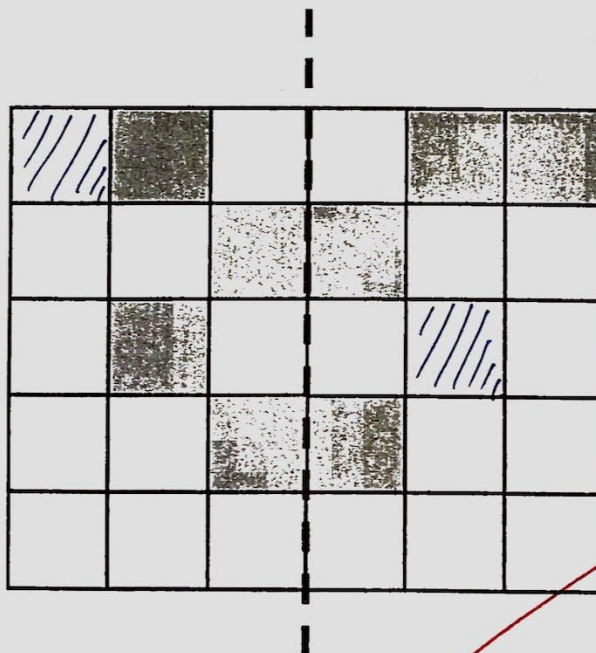
$$\angle BCF = \angle CFD$$

$$\angle BCF = 20^\circ$$

$$\angle CFD = 20^\circ$$

Answer: 20°

- 20 The dotted line is a line of symmetry.
 Shade 2 squares to complete the symmetric figure.



- 21 Every month, Joyce saves half of her salary and spends half of the remainder on food. If Joyce spends \$650 on food every month, how much would she save in 12 months?

$$\frac{1}{4}T = \text{Food}$$

$$650 = \frac{1}{4}T$$

$$650 \times 4 = \frac{1}{4}T$$

$$650 \times 4 = 2600$$

$$2600 \div 2 = 1300$$

1300 savings per month
is savings

$$1300 \times 12 = 12 \text{ months}$$

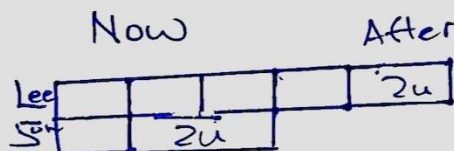
$$1300 \times 12 = \$15600$$

$$\begin{array}{r} 650 \\ \times 4 \\ \hline 2600 \end{array}$$

$$\begin{array}{r} 1300 \\ \times 12 \\ \hline 2600 \\ 1300 \\ \hline 15600 \end{array}$$

Answer: \$ 15600

- 22 This year, Mr Lee is 4 times as old as his son. In 20 years' time, he will be twice as old as his son. How old is Mr Lee's son this year?



Now

$$4:1$$

+20 years

$$2:1$$

+20 years

$$6:3$$

$$6:3 = 2:1$$

$$2u = 20 \text{ years}$$

$$u = 10 \text{ years}$$

Answer: 10 years old

Check

Mr Lee is 40

Son is 10

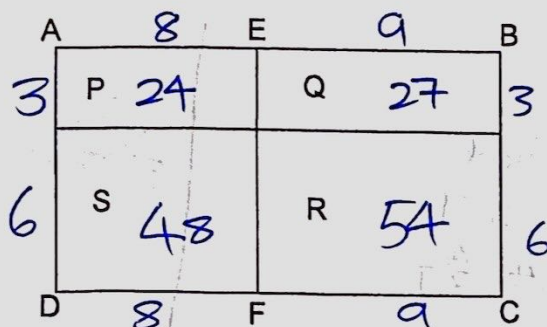
$$40 + 20 = 60$$

$$10 + 20 = 30$$

$$60 \div 2 = 30$$

$$30 - 20 = 10$$

- 23 The figure below shows a rectangle ABCD that is divided into 4 parts P, Q, R and S. EBCF is a square.



The area of P is 24 cm^2 , the area of Q is 27 cm^2 and the area of R is 54 cm^2 . Find the area of S.

$$27 - 24 = 3$$

$$27 \div 3 = 9$$

$$24 \div 3 = 8$$

$$54 \div 9 = 6$$

$$6 \times 8 = 48$$

Answer: 48 cm^2

- 24 James participated in a game show. He won \$10 for every question he answered correctly. He managed to answer 4 questions correctly for every 7 questions asked. How many questions did James answer in total if he won \$200?

→ James has to answer every question that he is asked.

$$4 \times 10 = 40$$

$$200 \div 40 = 5$$

$$5 \times 7 = 35$$

Answer: 35

- 25 Fashion Mall sells 3 ties and 2 shirts for \$100. The total cost of 1 tie and 1 shirt is \$43. How much does 1 shirt cost?

$$3t + 2s = \$100$$

$$1t + 1s = \$43$$

$$3t + 3s = \$43 \times 3$$

$$3t + 3s = \$129$$

$$\$129 - \$100 = 3t + 3s - 3t - 2s$$

$$\$129 - \$100 = 1s$$

$$\$29 = 1s$$

Answer: \$ 29

- 26 I am a number between 30 and 80.
I have an odd number of factors and none of my factors are even.
What number am I?

Odd number of factors = Square no.

All Square between 30-80 = 36 49 64

$$64 = \text{even } \times$$

$$36 = \text{even } \times$$

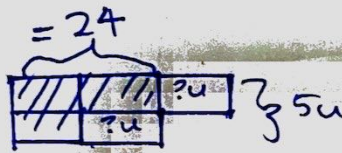
$$49 = 1, 7, 49 \checkmark$$

Answer: 49

- 27 In a group of 24 students, $\frac{2}{3}$ of them were boys. When an equal number of boys and girls joined the group, the number of boys became $\frac{3}{5}$ of the new total number of students. How many girls joined the group?

$$B = \frac{2}{3}T \text{ of } 24 = 16$$

$$G = \frac{1}{3}T \text{ of } 24 = 8$$



$$B = \frac{3}{5}T$$

$$\frac{1}{3}T = 8$$

Check

$$\begin{array}{r} 16 : 8 \\ + 8 + 8 \\ \hline 24 : 16 \\ \div 8 \\ 24 \div 3 \\ \hline 40 = 5 \\ \div 8 \end{array}$$

Answer: 8 girls

- 28 The average of 3 different odd numbers is 25. What is the largest possible value of one of the numbers?

$$25 \times 3 = 75$$

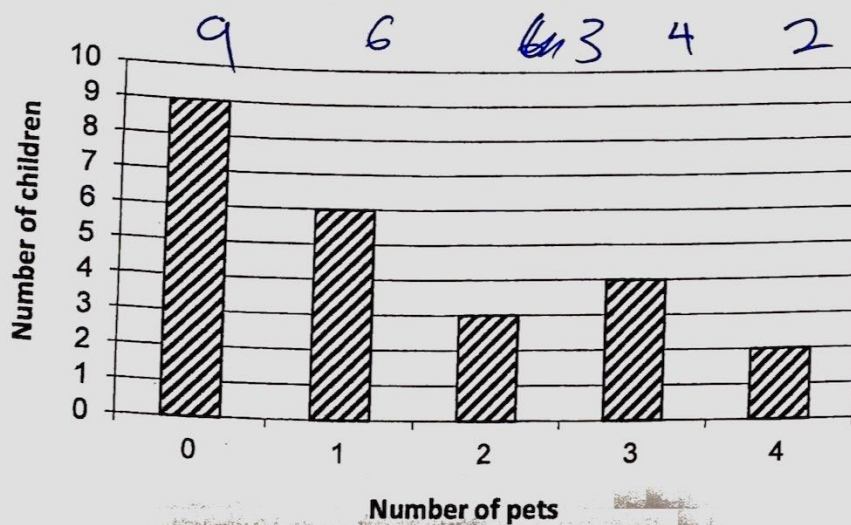
$$\text{Lowest odd} = 1$$

$$\text{2nd lowest} = 3$$

$$75 - 1 - 3 = 71$$

Answer: 71

- 29 The bar graph below shows the number of pets the children in a class have.

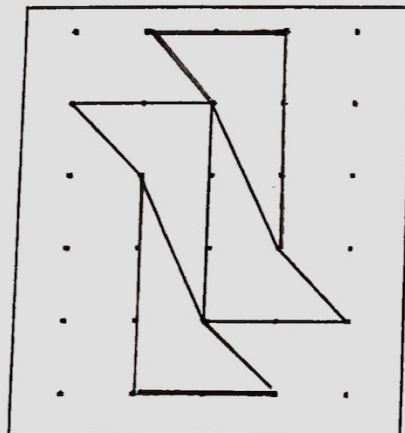


Find the total number of pets the children in the class have.

$$\begin{aligned}
 & (6 \times 1) + (3 \times 2) + (4 \times 3) + (2 \times 4) : \\
 & = 6 + 6 + 12 + 8 \\
 & = 12 + 20 \\
 & = 32
 \end{aligned}$$

Answer : 32 pets

- 30 The figure below is made up of 2 unit shapes. Complete the tessellation by drawing 2 more unit shapes in the given grid.



24 OCT 2015

END OF PART 1