

DIRECTORATE FOR QUALITY AND STANDARDS IN EDUCATION
 Department for Curriculum Management and eLearning
 Educational Assessment Unit
Annual Examinations for Secondary Schools 2013

Level
 5 – 6 –

FORM 2 **MATHEMATICS** **TIME: 30 minutes**
Non Calculator Paper

Name: _____

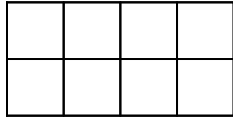
Class: _____

Question	1	2	3	4	5	6	7	8	Total
Mark									

Instructions to Candidates

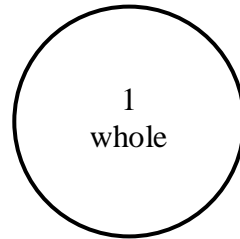
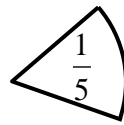
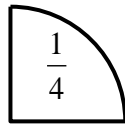
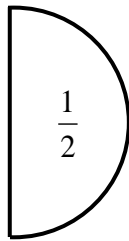
- Answer **ALL** questions.
- This paper carries a total of **25** marks.
- Calculators and protractors are **NOT ALLOWED**.

1. a) i) Shade $\frac{1}{4}$ of this diagram.



- ii) Fill in the blanks: $\frac{1}{4} = \frac{\square}{8}$

- b) **True** or **False**? Tick (✓) the correct box.



$$\frac{1}{2} + \frac{1}{4} + \frac{1}{5} = 1 \text{ whole}$$

☐ **True**

☐ **False**

(3 marks)

2. Fill in the blanks:

a) $10 = \square \times 5$

b) $12 = 4 \times \square$

c) $25 = 5 \times \square$

(3 marks)

3. Work out the following:

a)
$$\begin{array}{r} 13.1 \\ + 5.3 \\ \hline \\ \hline \end{array}$$

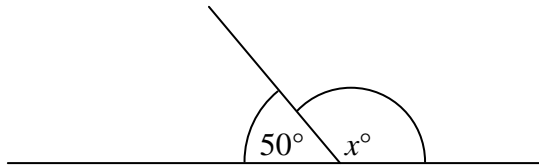
b)
$$\begin{array}{r} 4.7 \\ - 1.5 \\ \hline \\ \hline \end{array}$$

c)
$$\begin{array}{r} 13.2 \\ - 8.9 \\ \hline \\ \hline \end{array}$$

d)
$$\begin{array}{r} 10.26 \\ + 1.81 \\ \hline \\ \hline \end{array}$$

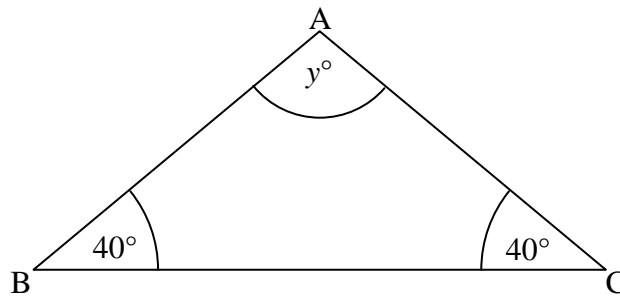
(4 marks)

4. a) Work out the value of x .



$x = \underline{\hspace{2cm}}^\circ$

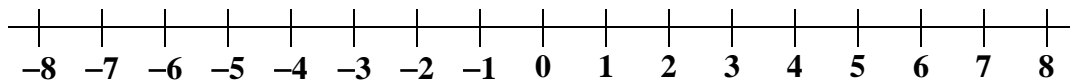
- b) Work out the value of y .



$y = \underline{\hspace{2cm}}^\circ$

(4 marks)

5.



Use the above number line to calculate the following:

a) $-3 + 5 = \underline{\hspace{2cm}}$

b) $-8 + 2 = \underline{\hspace{2cm}}$

c) $5 - 7 = \underline{\hspace{2cm}}$

d) $-3 - 2 = \underline{\hspace{2cm}}$

(4 marks)

6. Fill in the blanks:

a) $56\% = \frac{\boxed{\hspace{1cm}}}{100} = \frac{28}{50} = \frac{\boxed{\hspace{1cm}}}{\boxed{\hspace{1cm}}}$

b) $\frac{2}{7} + \frac{3}{7} = \frac{\boxed{\hspace{1cm}}}{\boxed{\hspace{1cm}}}$

(3 marks)

7. There are 16 balloons in a packet.

Jake takes $\frac{1}{4}$ of the balloons.

How many balloons does Jake take?



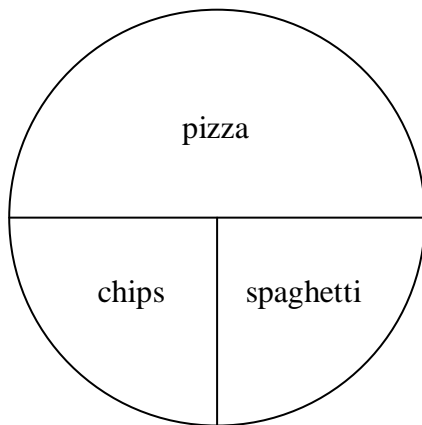
_____ balloons

(2 marks)

- 8.

This pie chart shows the favourite food of a class of students.

5 students like **chips** best.



- a) How many students like pizza?

_____ students

- b) How many students are there in the class?

_____ students

(2 marks)

END OF PAPER

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Level
 5 – 6 –

FORM 2

MATHEMATICS

TIME: 1h 30min

Main Paper

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total Main	Non Calc	Global Mark
Mark																		

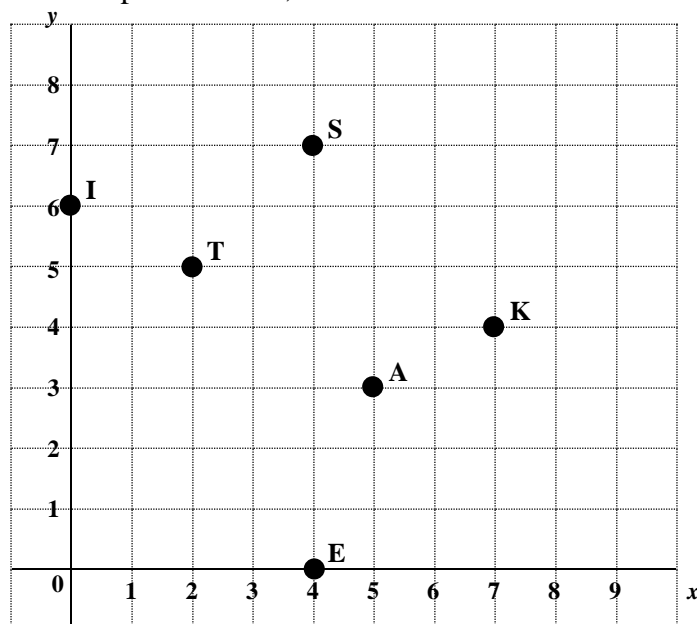
DO NOT WRITE ABOVE THIS LINE

Name _____

Class _____

**CALCULATORS ARE ALLOWED BUT ALL NECESSARY WORKING MUST BE SHOWN.
 ANSWER ALL QUESTIONS.**

1. Write down the letter of the points below, to form a word.



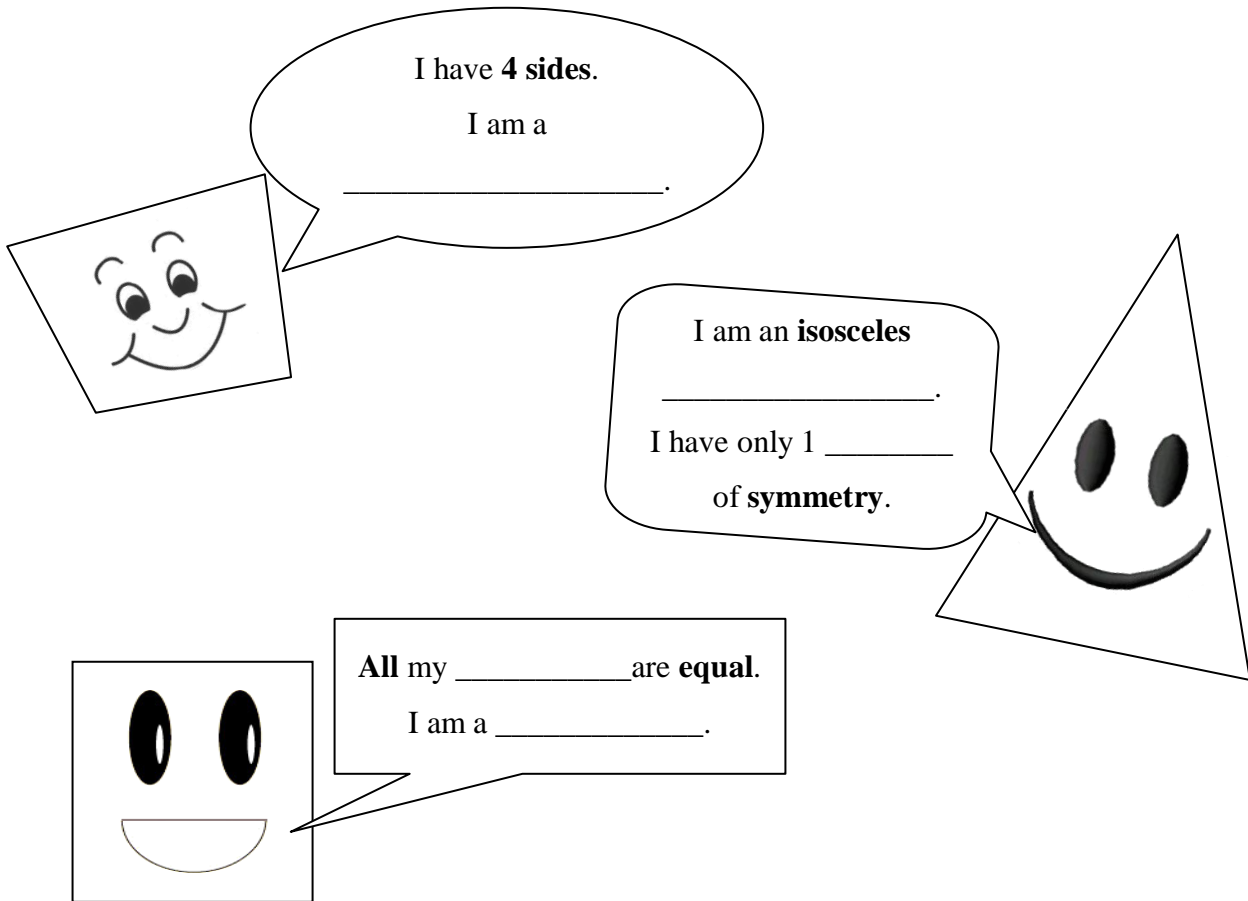
(7, 4) (0, 6) (2, 5) (4, 0)

_____ I _____

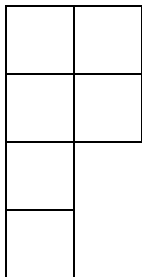
(3 marks)

2. a) Fill in the blanks with the following words:

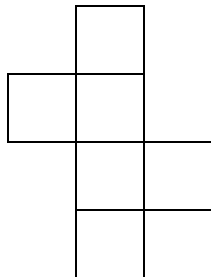
sides	line	quadrilateral	square	triangle
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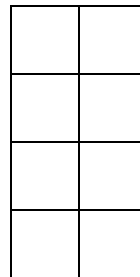
b) Which of the following drawings is a net that can be folded into a **cube**?



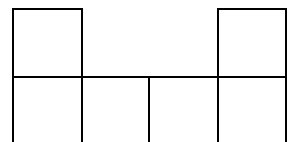
A



B



C



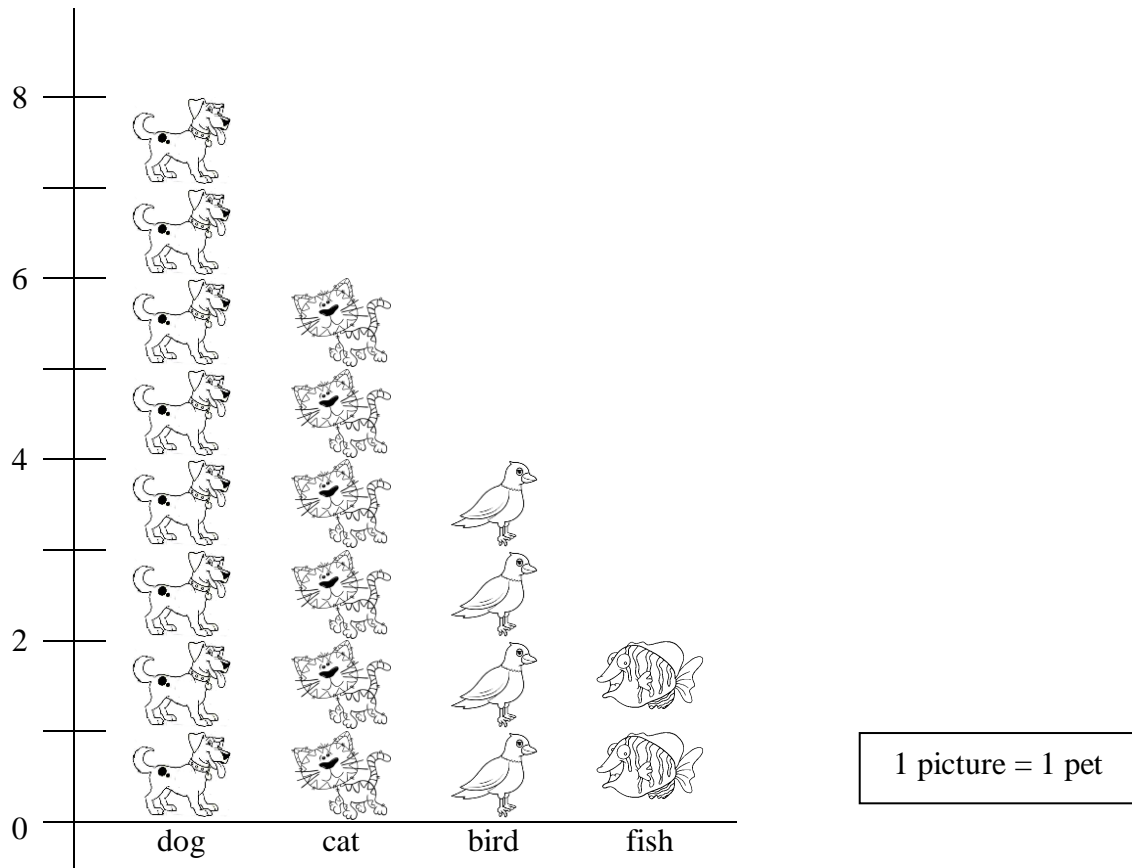
D

(5 marks)

Name: _____

Class: _____

3. Mandy draws a chart to show all the pets of her friends.



a) Which is the **most favourite** pet? _____

b) How many pets do they have **in all**? _____ pets.

c) Underline the correct word :

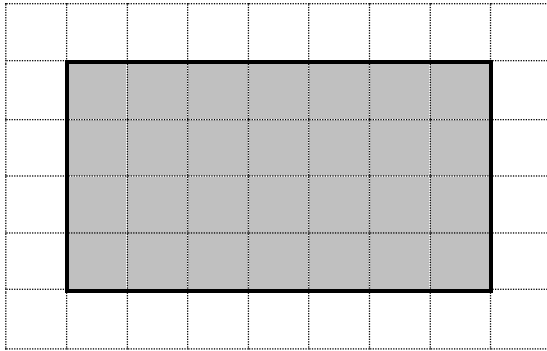
The probability that one of Mandy's friends has a **fish** is (unlikely, evens, likely).

d) Express the number of **birds** as a percentage of the total number of pets.

_____ %

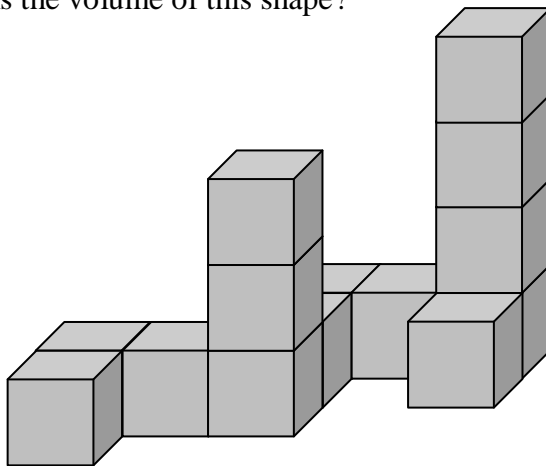
(5 marks)

4. a) Find the **area** of the shaded rectangle.



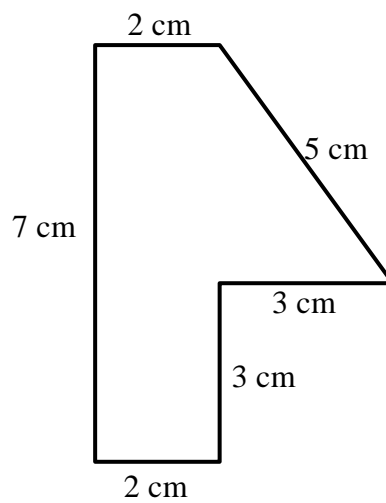
_____ squared units

- b) What is the volume of this shape?



_____ cubic units

- c) Work out the perimeter of this shape.



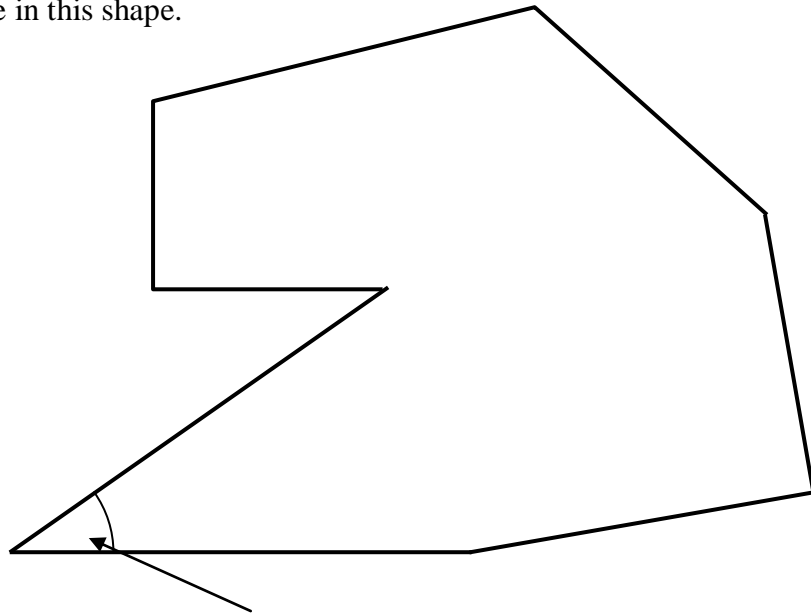
_____ cm

(4 marks)

Name: _____

Class: _____

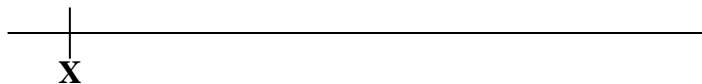
5. a) i) **Mark** a right angle in this shape.



- ii) Use your protractor to **measure** this angle.

_____°

- b) i) Use your protractor to **draw** an angle of **70°**, at point **X**.

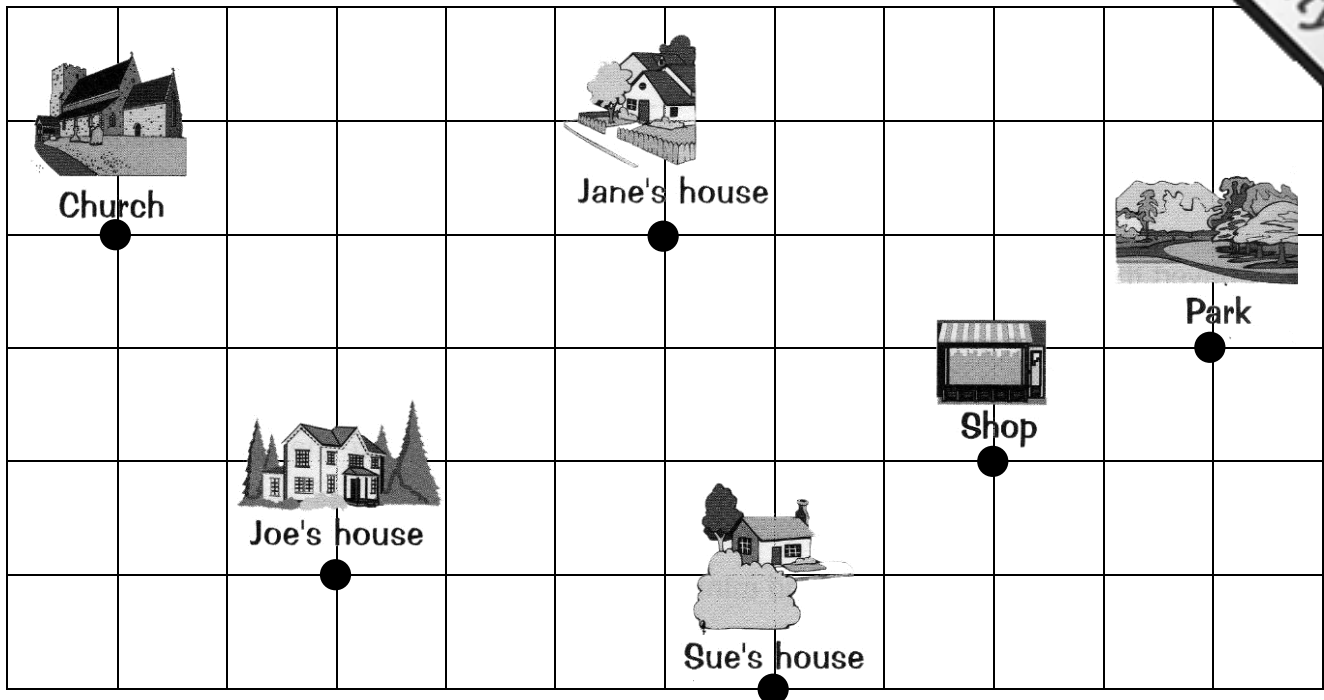


- ii) **Underline** the correct word:

The above angle is (an acute, a right, an obtuse) angle.

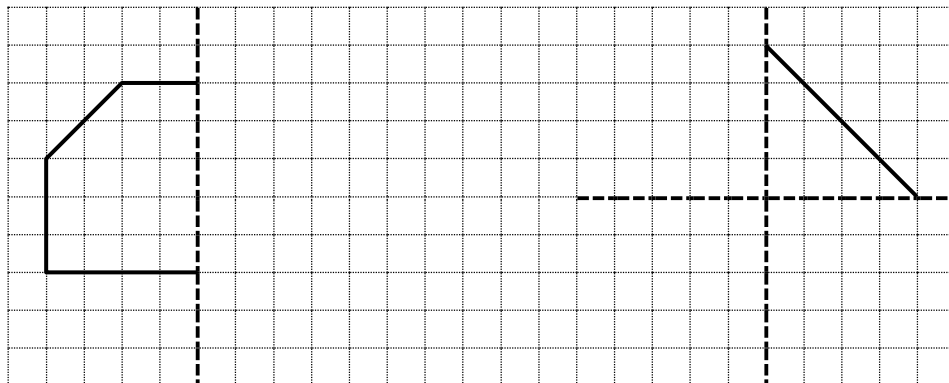
(4 marks)

6. a) **Underline** the correct word:



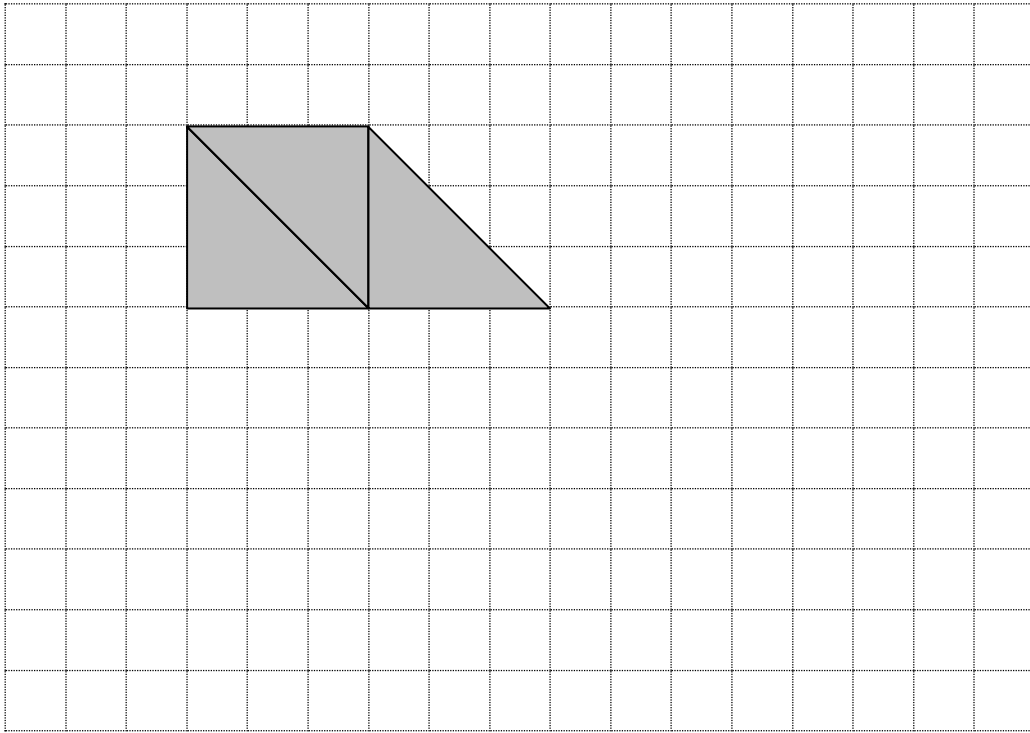
- i. Jane's house is to the (left, right, North) of the church.
- ii. Sue is at the park.
To get to her house Sue has to move 4 units (left, up, right) and 3 units down.
- iii. Joe starts from his house and moves 6 units right and 1 unit up.
He arrives at the (church, park, shop).

b) **Complete** the following shapes, to make them symmetrical about the dotted lines.



(6 marks)

7. Continue this tessellation with **4 more** triangles.



(2 marks)

- 8.

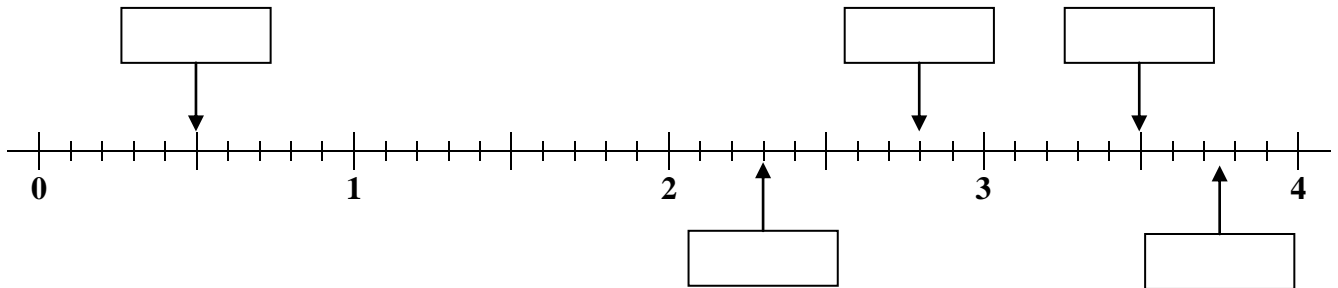


- Draw a **circle** around a **prime number**.
- Draw a **triangle** around the **largest square number**.
- From the above numbers, write down a number that is a **factor of 10**. _____
- Which of the above numbers is a **multiple of 10**? _____

(6 marks)

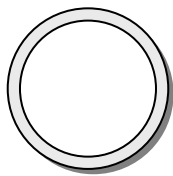
9. a) i) Place the following numbers in the correct boxes on the number line:

3.5 2.8 2.3 0.5 3.75



ii) Draw an arrow to show the position of the number **1.55**.

b) Martina is on the 4th floor, in a lift.
She goes **down** 6 floors to the car park.
Fill in the number that she presses.



- 5
- 4
- 3
- 2
- 1
- 0
- 1
- 2
- 3



c) $x = y + 6$

What is the value of x when $y = 2$?

$x =$ _____

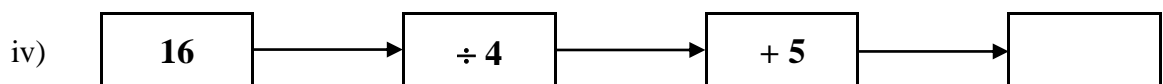
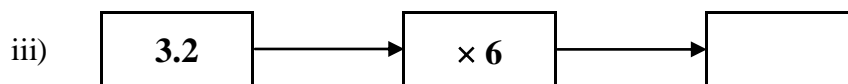
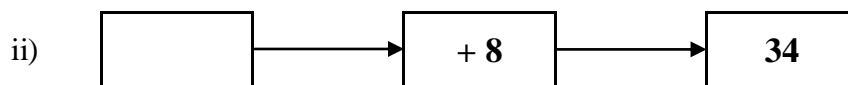
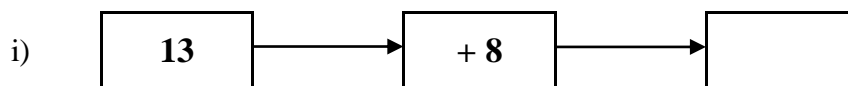
(9 marks)

10. a) Fill in the next 2 terms:



iii. 10, 8, 6, _____, _____

b) Fill in the blanks:



(9 marks)

11. Find the **mean** and **median** of the following marks:

4, 3, 2, 6, 5

Mean = _____

Median = _____

(4 marks)

12. a) Fill in the blanks: $\frac{9}{20} = \frac{45}{\boxed{}} = \boxed{}\%$

- b) Eric buys a bicycle.
 The bicycle costs €165.
 The shop offers a **discount of 20%**.
 Calculate the discount offered.



€ _____

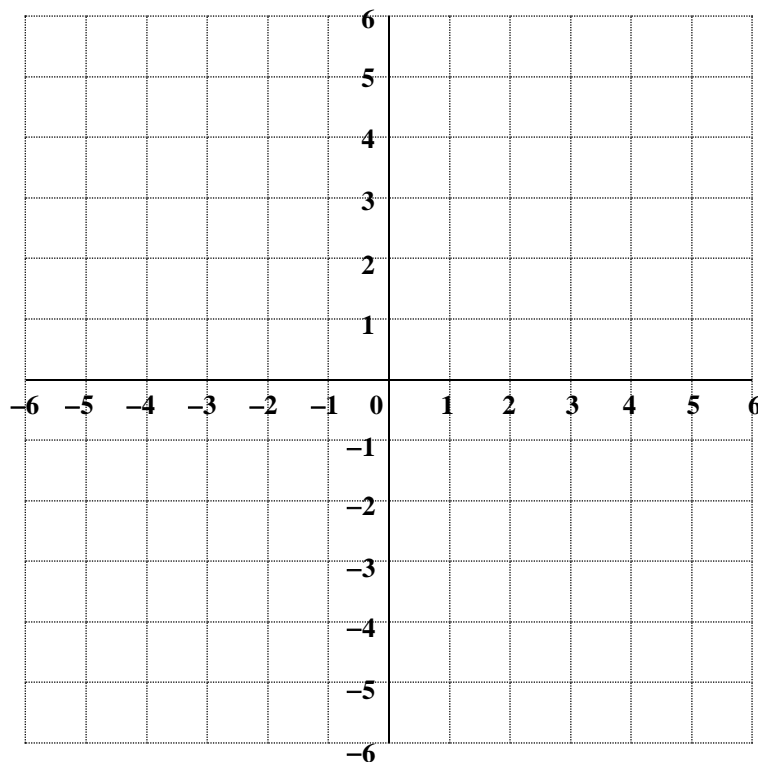
(5 marks)

13. Plot the following points and draw a **straight line**, passing through all the points.

A(1, 1)

B(0, -1)

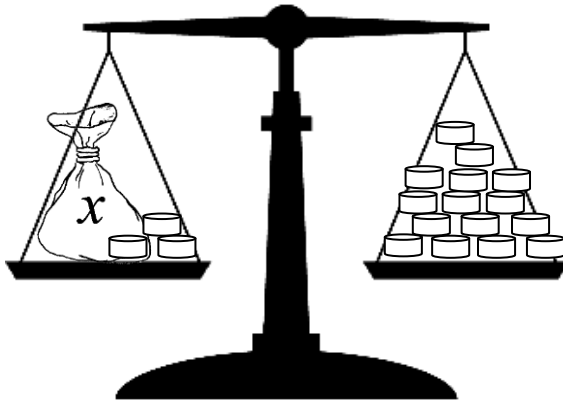
C(-2, -5)



(3 marks)

14. Find x .

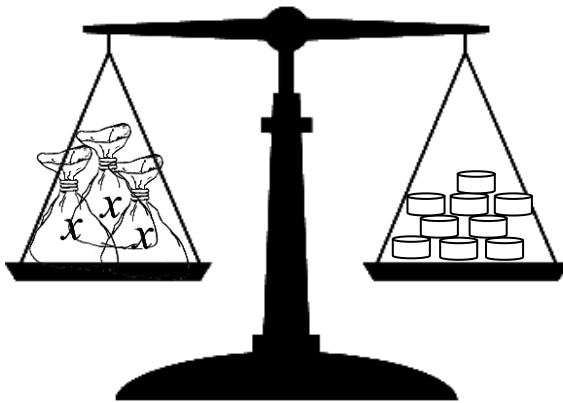
a)



$$x + 3 = 15$$

$$x = \underline{\hspace{2cm}}$$

b)



$$3x = 9$$

$$x = \underline{\hspace{2cm}}$$

(4 marks)

15. Chiara has a recipe for cup cakes for **6 persons**.



a) How many eggs are needed for **12 persons**?

_____ eggs

b) Simplify the **ratio of sugar is to flour**.

sugar : flour

100 : 150

_____ : _____

Chiara makes **20 cupcakes**.

She divides them between her brother and sister in the **ratio 3 : 2**.

c) How many cupcakes does she give her **sister**?



_____ cup cakes

(6 marks)

END OF PAPER