

**FORM 1**

**MATHEMATICS**  
**Non-Calculator Paper**

**TIME: 30 minutes**

**Name:** \_\_\_\_\_

**Class:** \_\_\_\_\_

Question	1	2	3	4	5	6	7	8	9	10	Total
Mark											

### Instructions to Candidates

- Answer all questions.
- This paper carries a total of 25 marks.
- Calculators and protractors are not allowed.

1. Work out the **sum** of: 27.86 and 9.5

\_\_\_\_\_

(1 mark)

2. Write in order of size, **smallest first**: one million,  $10^4$ , one hundred thousand.

\_\_\_\_\_

(2 marks)

3. Mike has forty-nine boxes each containing 51 cards.  
Work out the **total** number of cards.

\_\_\_\_\_

(2 marks)

4. a) Arrange these cards 

0	0	.	4	4
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 to make the number **nearest** to 4.

- b) If  $585 \div 13 = 45$ , what is the answer of  $5.85 \div 13$ ?

- c) Evaluate:

(i)  $(0.3)^2$

(ii)  $(-2) \times (-5)$

\_\_\_\_\_

(4 marks)

5. a) Anita thinks of a number. The number lies between 2 and 99.

The number is: a **square** number, an **odd** number, and also a **factor** of 100.

What is her number?

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- b) Fill in with the **smallest** number possible:

$$30 + \boxed{\phantom{00}} = \text{a multiple of 9}$$

- c) Write 420 as a product of its **prime factors**.

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(4 marks)

6. a) Fill in:

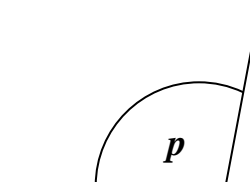
The size of angle  $p$  is about \_\_\_\_\_ .

45°

85°

100°

200°



- b) One angle of an isosceles triangle is 70°.

Mario says that in this triangle, one of the angles could be 55°.

Is he right? Explain.

Yes / No ,

because.....

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(3 marks)

7. At Peppi's farm  $\frac{4}{5}$  of the cows have spots. At Leli's farm 73% of the cows have spots. Lora says that there are **more** cows with spots in Leli's farm. Is she right? Explain.

Yes / No. \_\_\_\_\_

\_\_\_\_\_  
(2 marks)

8. a) Express 3 km 9 m in km.

- b) Henry made a scale model of a car using a scale of **1:20**.

If the real car is 5 m long, how long is the model?

\_\_\_\_\_  
(2 marks)

9. Complete the sequence:

\_\_\_\_\_, -5, -3, -1, 1, \_\_\_\_\_

\_\_\_\_\_  
(2 marks)

10. a) Simplify:  $\frac{5}{12} \times \frac{4}{7}$

- b)  $\frac{1}{4}$ ,  $\frac{4}{5}$ ,  $\frac{1}{10}$ ,  $\frac{3}{10}$ ,  $\frac{6}{10}$

Which **two** of the fractions above, together make  $\frac{7}{20}$ ?

\_\_\_\_\_  
(3 marks)

END OF PAPER

**FORM 1**

**MATHEMATICS**

**TIME: 1h 30min**

**Main Paper**

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

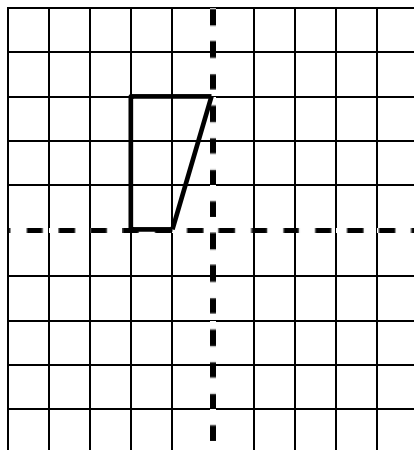
**DO NOT WRITE ABOVE THIS LINE**

**Name:** \_\_\_\_\_

**Class:** \_\_\_\_\_

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

- 1 a) Complete this shape which has **two** lines of symmetry.



- b) Which of the following quadrilaterals has **rotational** symmetry but does **not** have any lines of symmetry?

**KITE    PARALLELOGRAM    RECTANGLE    TRAPEZIUM**

\_\_\_\_\_

(3 marks)



2 a) (i) Show the time ***quarter to eight***, on the clock face.

(ii) Write the time **half** an hour later.

\_\_\_\_\_

b) If today is Friday seventh May, what **date** was it last Friday?

\_\_\_\_\_

c) Annabel is doing a summer job from **09:00** till **14:00**. She is paid €5.34 per hour. If she takes a 1 hour **unpaid** break everyday, how much does she earn:

(i) in 1 day?

€ \_\_\_\_\_

(ii) in a five-day week, correct **to the nearest** euro?

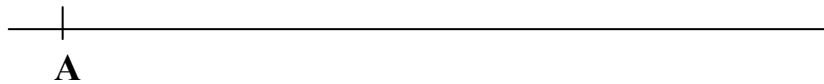
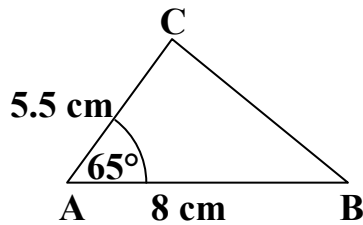
€ \_\_\_\_\_  
(correct to nearest euro)

(7 marks)

Name: \_\_\_\_\_

Class: \_\_\_\_\_

3. The diagram shows a sketch of triangle ABC. Use the following instructions to construct an accurate diagram.



- Mark** point B on the line, 8 cm from point A.
- Use a protractor to **draw** an angle of  $65^\circ$  at **A**.
- Continue to make an accurate, **labelled** drawing of triangle ABC.
- Use a protractor to **measure** angle C.

Angle C = \_\_\_\_\_

- Measure the **height** of the triangle from C to the base AB, correct to **1 decimal place**.

Height = \_\_\_\_\_ cm

- Work out the **area** of triangle ABC.

\_\_\_\_\_  $\text{cm}^2$

(8 marks)

4. Work out the size of the lettered angles.

Then choose one of the following reasons for each answer.

*angles of a triangle*

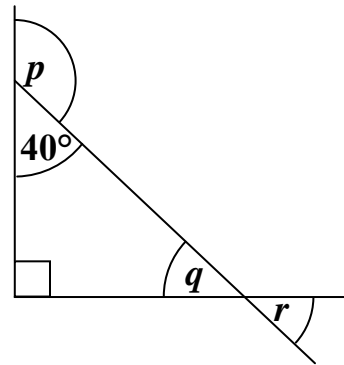
*corresponding angles*

*vertically opposite angles*

*alternate angles*

*angles on a straight line*

a)  $\mathbf{p} =$  \_\_\_\_\_  $\circ$



(reason: \_\_\_\_\_)

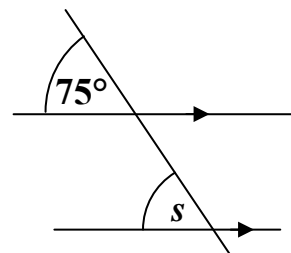
b)  $\mathbf{q} =$  \_\_\_\_\_ °

(reason: \_\_\_\_\_)

c)  $\mathbf{r} =$  \_\_\_\_\_ °

(reason: \_\_\_\_\_)

d)  $s =$  \_\_\_\_\_ °



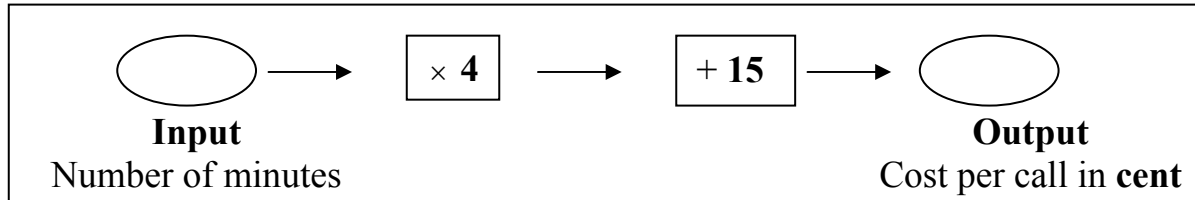
(reason: \_\_\_\_\_)

*(8 marks)*

Name: \_\_\_\_\_

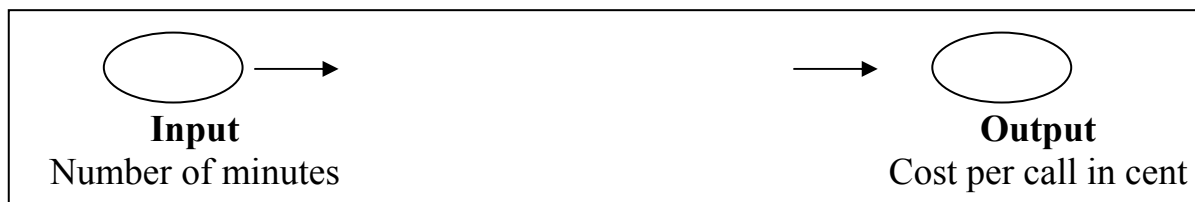
Class: \_\_\_\_\_

5. ***Magic Mobile*** uses this number machine to calculate the cost per call:



***Happy Phones*** charges only **3 cent** per minute plus a charge of **20 cent** per call.

a) Write this as a number machine.



b) Marlene makes a call lasting **2 minutes**.

Which company is **cheaper** and **by how much**?

\_\_\_\_\_ cheaper by \_\_\_\_\_ cent

c) Gary pays **19 cent** for a call using ***Magic Mobile***. How long is his call?

\_\_\_\_\_ minute/s

(7 marks)

6. The table shows the pocket money (in euro) earned per week by a group of

5	5	10	10
10	10	10	10
12	12	12	15
15	15	18	20
20	25	25	30

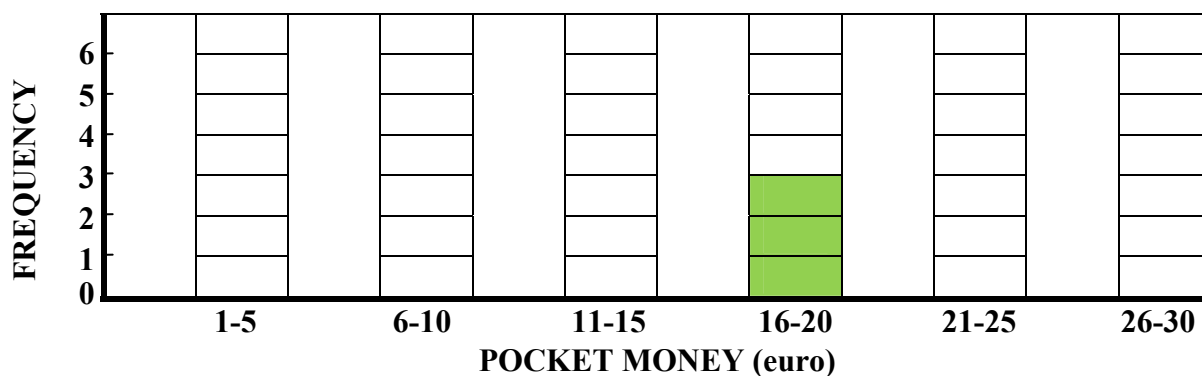
a) What is the **range** of pocket money?

€ \_\_\_\_\_

b) Complete the table.

Pocket money	Tally	Frequency
1 - 5	//	2
6 - 10		
11 - 15	////	
16 - 20		
21 - 25		
26 - 30		
Total		20

c) Continue shading the bar chart to represent the above information.



d) Fill in the spaces.

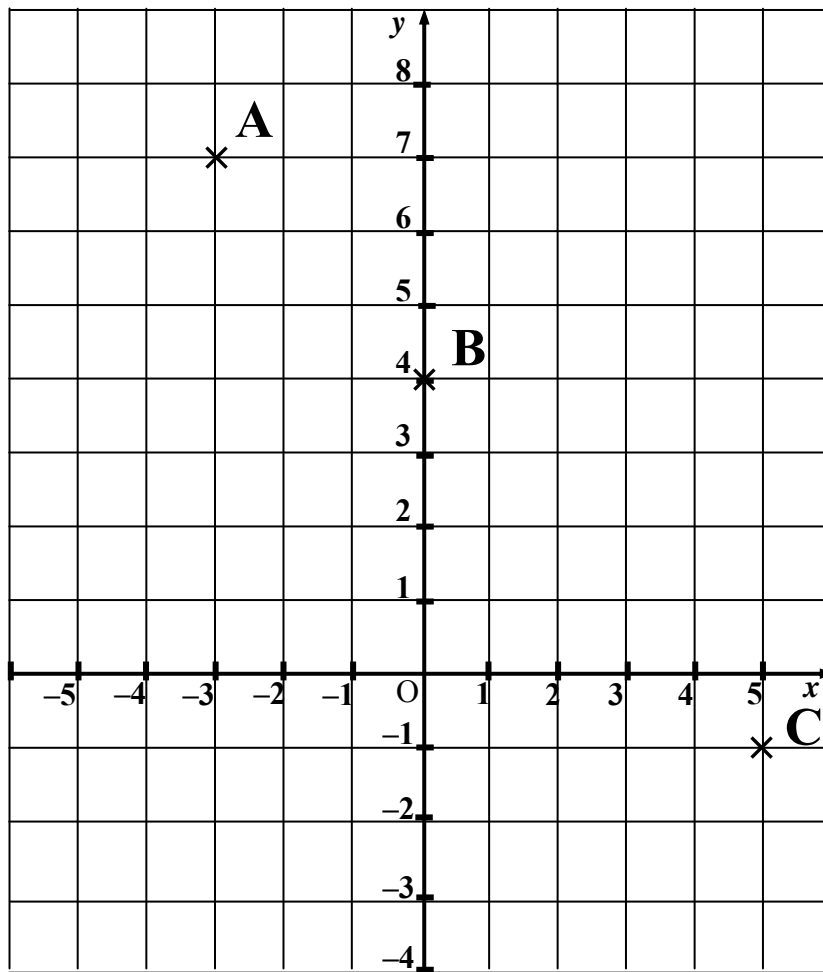
The number of children who received **less** than €16: those who received €16 or more.

= \_\_\_\_\_ : \_\_\_\_\_

e) What is the probability of getting **more** than €20 in this group?

\_\_\_\_\_  
(8 marks)

7.

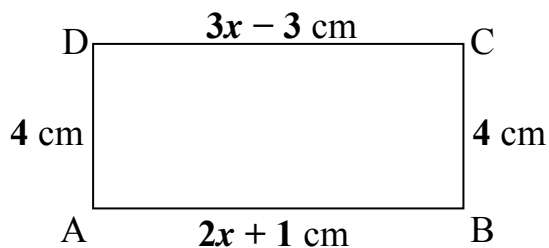


- a) Write the co-ordinates of **A** (   ,   )  
and **B** (   ,   )  
and **C** (   ,   ).
- b) **Plot** and **label** the point **P** ( **-1** , **5** )  
and the point **Q** ( **3** , **1** ).
- c) Use a ruler to join **A** to **C**.
- d) Which **one** of the following is the equation of line **AC**?

$$x = 7 \quad y = 4 \quad x = y \quad x + y = 4$$

(7 marks)

8 a)



- (i) ABCD is a rectangle. Complete the equation in terms of  $x$ :

$$3x - 3 = \underline{\hspace{2cm}}$$

- (ii) From (i), find value of  $x$ .

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

- (iii) Work out the length of side AB.

$$\underline{\hspace{2cm}} \text{ cm}$$

- (iv) The **area** of rectangle ABCD is equal to the area of a **square**.

What is the length of one side of this square?

$$\underline{\hspace{2cm}} \text{ cm}$$

- 
- b) Complete the LOGO command that draws a **square** whose **perimeter** is **200** turtle steps.

PD REPEAT        [ FD        RT        ]

(10 marks)

9 a) Tidy up:

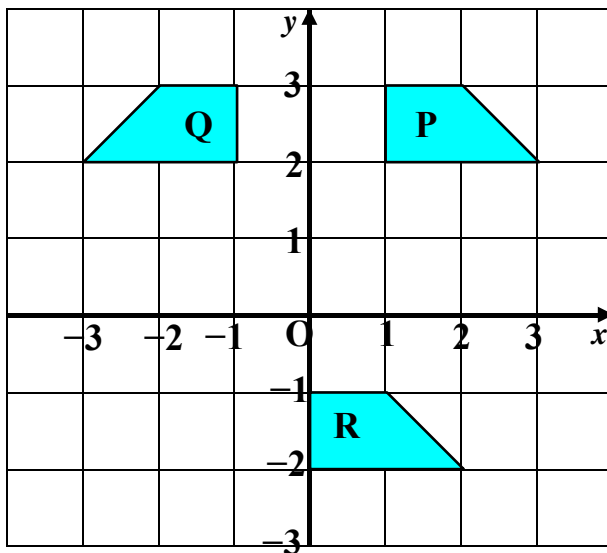
(i)  $-4a + 9a - 2a =$  \_\_\_\_\_

(ii)  $2(3p - q) + p + q =$  \_\_\_\_\_

b) If  $h = 2$  and  $j = 5$ , work out the value of  $h^3 + hj$ .

(6 marks)

10.



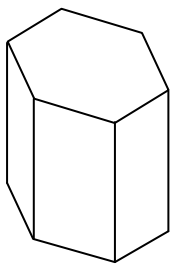
For each of the following describe *fully* the transformation which takes the first shape on to the second.

a) **P to Q** \_\_\_\_\_

b) **P to R** \_\_\_\_\_

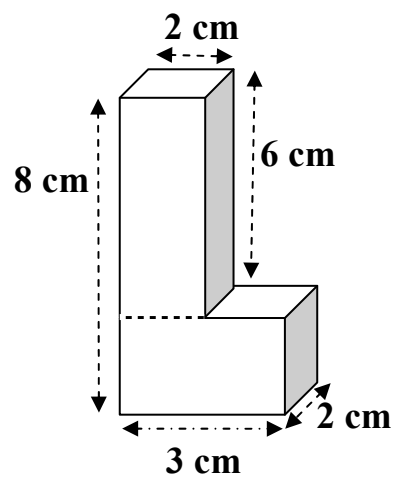
(5 marks)

11 a)



This solid has \_\_\_\_\_ edges  
and  
\_\_\_\_\_ faces.

b) Work out the **volume** of the solid.



\_\_\_\_\_ cm<sup>3</sup>

(6 marks)

END OF PAPER