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**FORM 3                      MATHEMATICS   SCHEME D                      TIME: 30 minutes**  
**Non Calculator Paper**

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

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

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1	2	3	4	5	6	7	8	9	10	Total

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**Instructions to Candidates**

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

a)  $(3 + 4) - 2 = \underline{\hspace{2cm}}$

b)  $(9 - 7) + (8 - 4) = \underline{\hspace{2cm}}$

(2 marks)

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2. Follow the rule and continue the sequence.

a) The sequence is **ADD 3**.

5, 8, 11,   ,   

b) The sequence is **MINUS 5**.

100, 95, 90,   ,   

(2 marks)

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3. Work out:

a)  $\frac{1}{2}$  of €1 =    cent

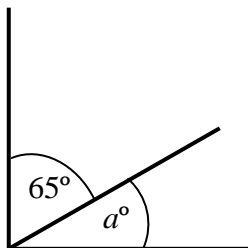
b)  $\frac{1}{4}$  of €1 =    cent

(2 marks)

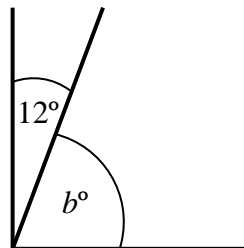
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Name: \_\_\_\_\_ Class: \_\_\_\_\_

4. These are **right angles** divided into two. Each **right angle** is  $90^\circ$ . Work out (do not measure) the value of the unknown angle.



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



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

(2 marks)

5. Find '100 less than' and '100 more than' to complete the table below.

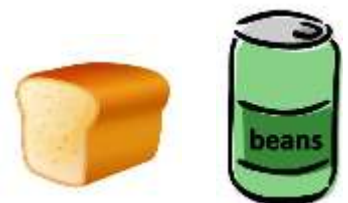
- 100		+ 100
	115	215
	331	
	728	

(3 marks)

6. Emma bought a tin of beans for 19c and a loaf of bread for 54c.

- a) How much did she pay in all?

Ans: \_\_\_\_\_c



- b) Work out the change she gets from €2.

Ans: \_\_\_\_\_

(2 marks)

7. This tally chart shows the drinks sold on a Saturday morning.

DRINK	TALLY	FREQUENCY
Coffee		16
Tea		
Milk		
Juice		
Water		

- Fill in the last column.
- Which drink was the **most popular**? \_\_\_\_\_
- Which drink was the **least popular**? \_\_\_\_\_
- What was the **total number** of drinks sold? \_\_\_\_\_

(4 marks)

8. Solve the equations.

a)  $10 + p = 12$

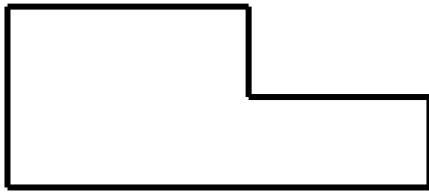
b)  $3t = 36$

$p =$  \_\_\_\_\_

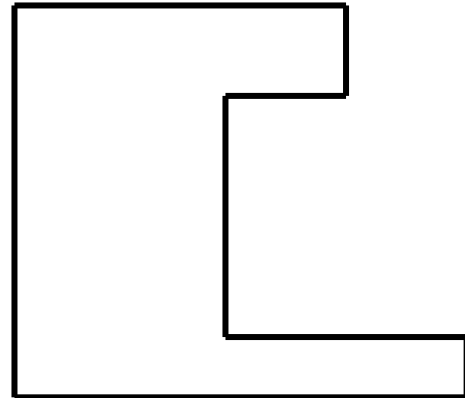
$t =$  \_\_\_\_\_

(3 marks)

9. Use your ruler and pencil to divide these shapes into **rectangles**.



Number of rectangles is \_\_\_\_



Number of rectangles is \_\_\_\_

(2 marks)

10. Round these prices to the nearest euro.

Object	Price	To the nearest euro
SCARF 	€10.74	
JEANS 	€35.49	
SKIRT 	€47.09	

(3 marks)

**FORM 3 MATHEMATICS SCHEME D TIME: 1h 30min**  
**Main Paper**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total Main	Non Calculator	GLOBAL MARK

**DO NOT WRITE ABOVE THIS LINE**

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

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

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

1. Put these amounts in order, starting with the smallest:

a) **€0.90, €0.40, €0.60**

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

b) **1.25 kg, 2.40 kg, 1.15 kg, 2.04 kg**

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

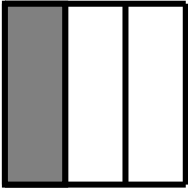
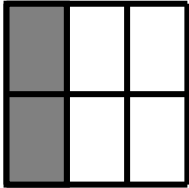
(2 marks)

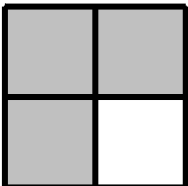
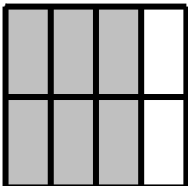
2. Complete the table below.

	Is it a multiple of 3?	Is it a factor of 30?	Is it a prime number?
5	No		
6		Yes	
12			No

(4 marks)

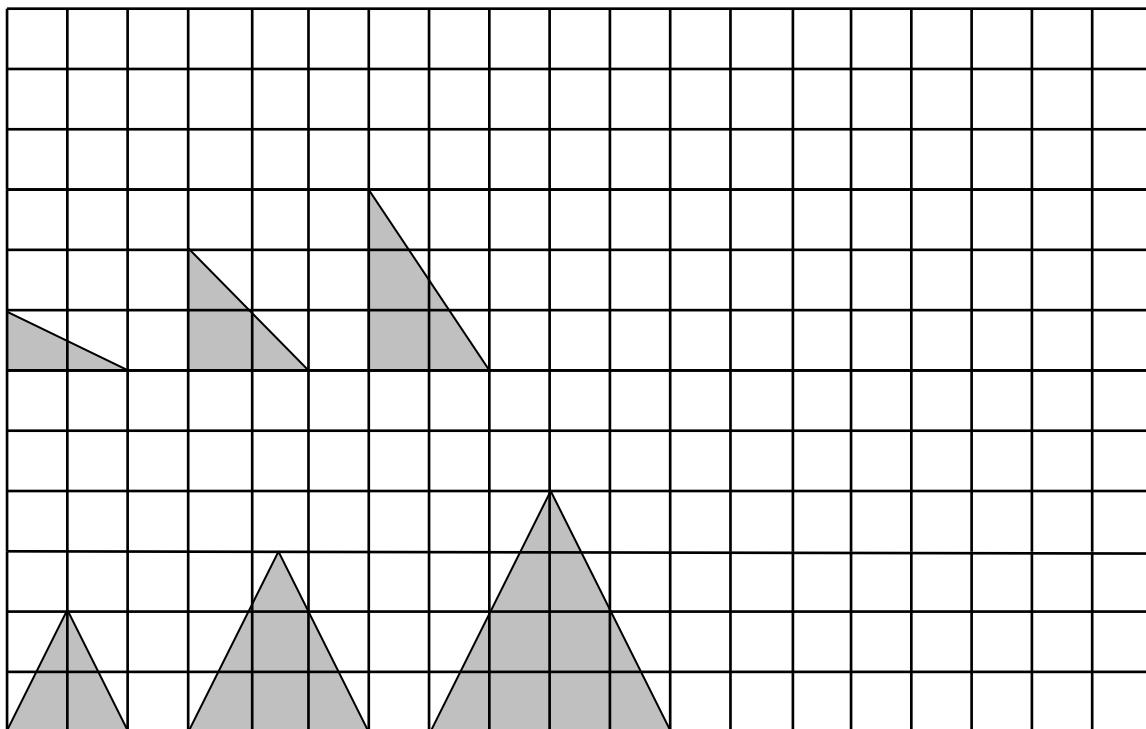
3. Complete the following:

a)  $\frac{1}{3} =$    $=$    $= \frac{\quad}{6}$

b)  $\frac{3}{4} =$    $=$    $= \frac{\quad}{\quad}$

(3 marks)

4. Draw the next pattern in each row:



(6 marks)

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

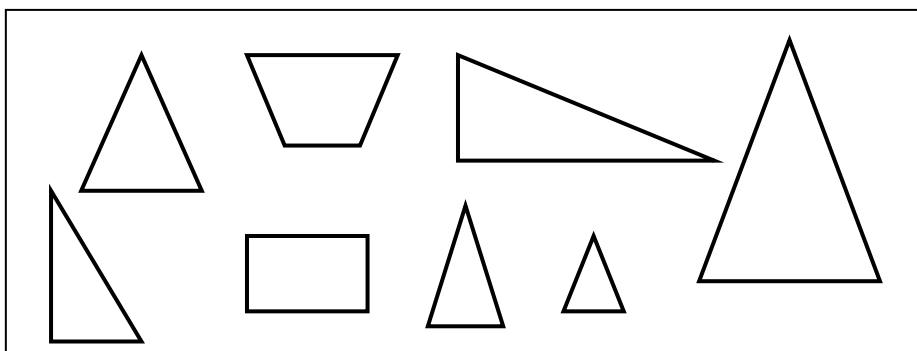
5. a) Mary and Paul share 20 chocolate cakes in the ratio 2: 3. How many cakes do they each have?



Mary gets \_\_\_\_\_ cakes

Paul gets \_\_\_\_\_ cakes

b)



Fill in:

- (i) There are \_\_\_\_ **right-angled triangles** in the diagram.
- (ii) There are \_\_\_\_ **isosceles triangles** in the diagram.
- (iii) Complete:

number of **quadrilaterals** : number of **triangles** =

\_\_\_\_\_ : \_\_\_\_\_  $\xrightarrow{\text{SIMPLIFYING}}$  \_\_\_\_\_ : \_\_\_\_\_

(6 marks)



6. a) Last Monday, 97% of the students were present. What percentage of the students were **absent**?

Ans: Students absent: \_\_\_\_\_%

- b) Work out 10% of 20 kg.

Ans: \_\_\_\_\_kg

- c) Write 50% as a fraction. **Simplify** your answer.

Ans:  $50\% =$  \_\_\_\_\_

(6 marks)

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**7. Simplify:**

a)  $3b + 2b =$  \_\_\_\_\_

b)  $8x - 3x =$  \_\_\_\_\_

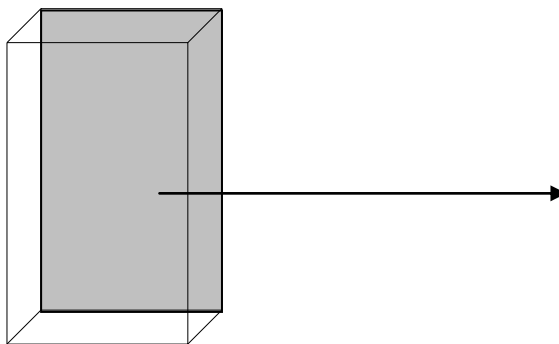
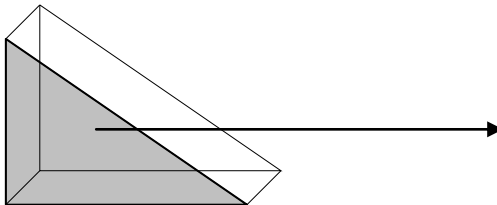
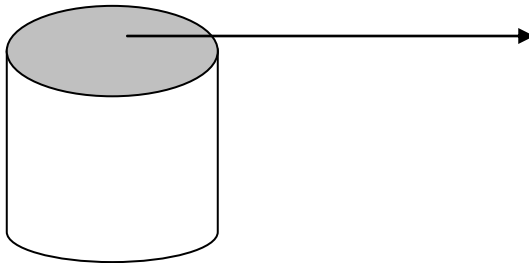
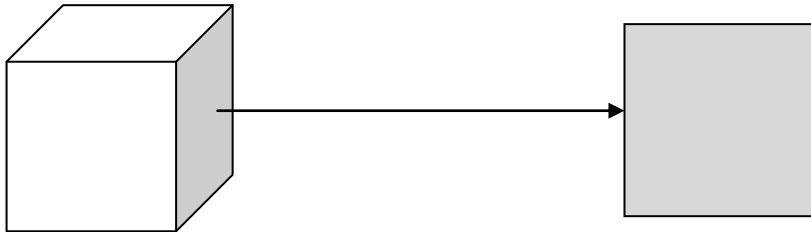
c)  $2y + 3z - z + 3y =$  \_\_\_\_\_

(4 marks)

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

8. Draw the shape of the **shaded face** shown.  
(The first one is done for you.)

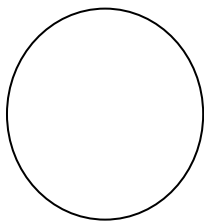


(6 marks)

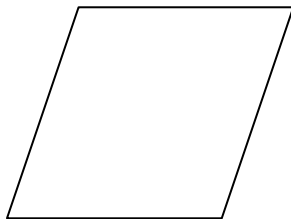
9. Match the following:



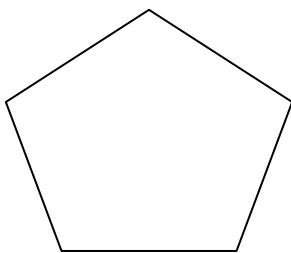
Has no sides



4 angles of  $90^\circ$



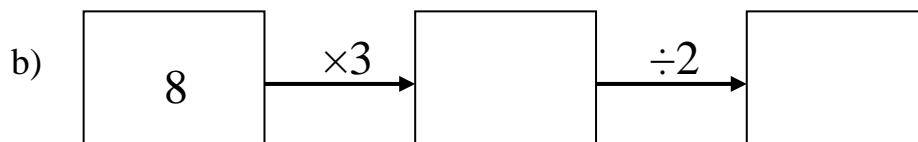
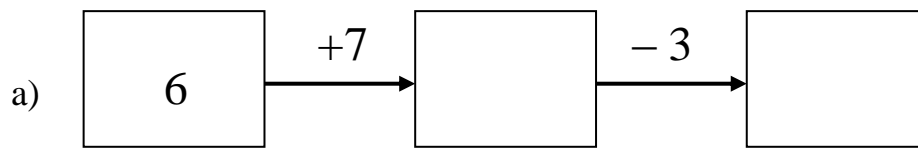
Has 5 sides



Opposite sides parallel

(6 marks)

10. Complete the following function machines:



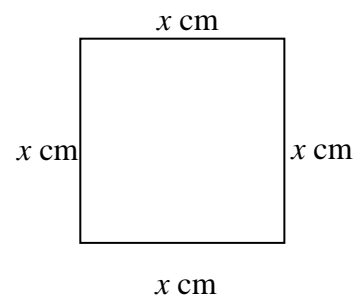
(4 marks)

11. a) Mark has  $m$  marbles and wins 4. How many marbles does Mark have now? **Underline the correct answer.**

Mark now has  $4m$        $m + 4$        $m - 4$  marbles.



b) Each side of a square is  $x$  cm long.  
What is the perimeter equal to?



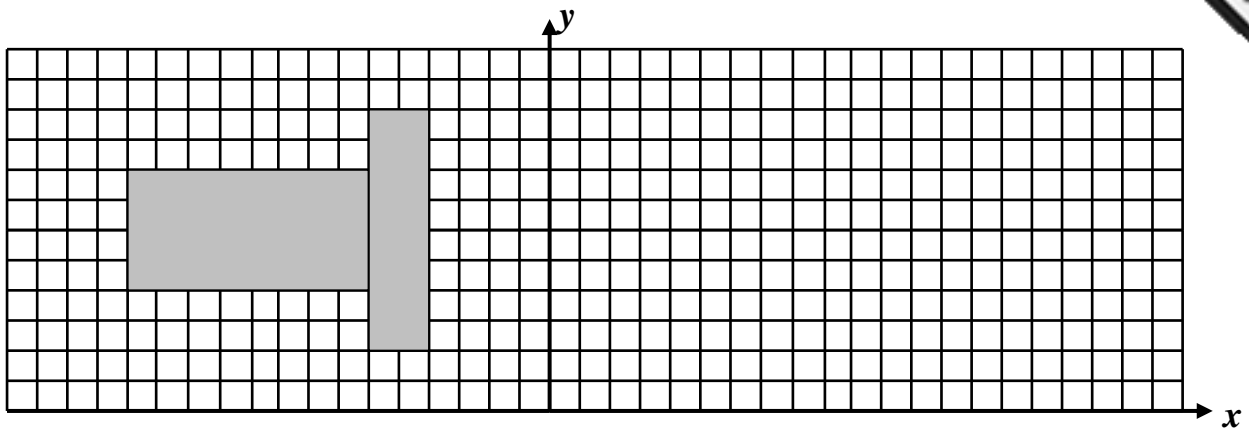
Ans: Perimeter is \_\_\_\_\_ cm

c) Work out the value of  $2b + c$  when  $b = 4$  and  $c = 7$ .

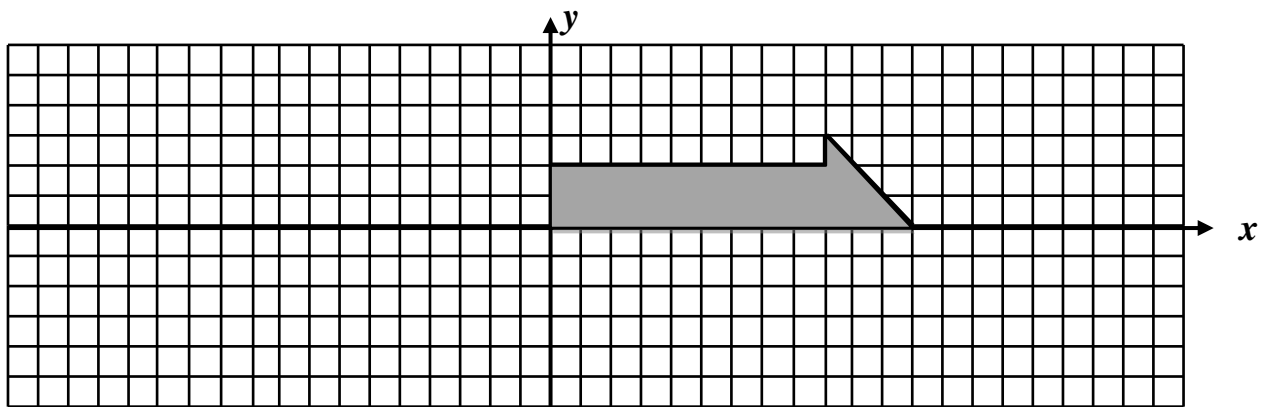
Ans:  $2b + c =$  \_\_\_\_\_

(6 marks)

12. a) Draw the reflection of the shape in the y-axis.



b) (i) **Both** the  $x$ - and the  $y$ -axis are lines of symmetry in the grid below. Complete the diagram.



(ii) The area of the given shaded figure is  $22.5 \text{ cm}^2$ . What is the total area of the complete diagram?

Ans: Total area is \_\_\_\_\_  $\text{cm}^2$

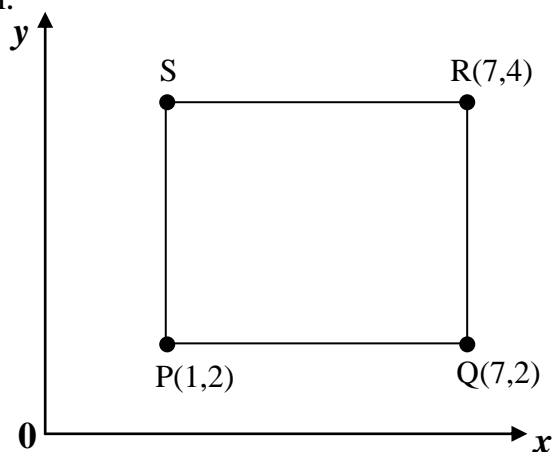
(8 marks)

13. Read the statement and **tick** the correct probability.

	IMPOSSIBLE	POSSIBLE	CERTAIN
Thursday will follow Wednesday.			✓
It will be dark tomorrow night.			
Tomorrow you will see a dinosaur at school.			
You will go to the sea this summer.			
It will rain during summer.			

(4 marks)

14. Look at this diagram.



- a) X is half way between points P and Q. What are the coordinates of point X?

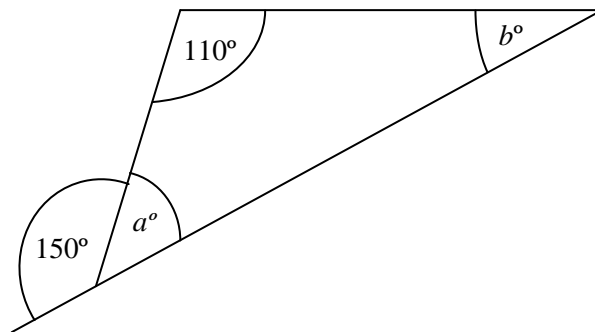
Ans: Point X = (     ,     )

- b) Shape PQRS is a **rectangle**. What are the coordinates of point S?

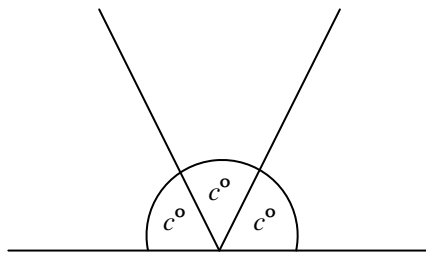
Ans: Point S = (     ,     )

(4 marks)

15. Work out the angles marked with letters in the diagrams below.



Ans:  $a^\circ = \underline{\hspace{1cm}}^\circ$ ,  $b^\circ = \underline{\hspace{1cm}}^\circ$



Ans:  $c^\circ = \underline{\hspace{1cm}}^\circ$

(6 marks)