

# SECONDARY SCHOOL ANNUAL EXAMINATIONS 2010

Directorate for Quality and Standards in Education  
Educational Assessment Unit

D

StudentBounty.com

**FORM 3**

**MATHEMATICS SCHEME D**  
**Non Calculator Paper**

**TIME: 30 minutes**

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

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

1	2	3	4	5	6	7	8	Total

## INSTRUCTIONS TO CANDIDATES

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

1 Fill in.

a) **3 kg** = \_\_\_\_\_ **grams**

b) \_\_\_\_\_ **metres** = **600 cm**

(2 marks)

2 Work out.

**$(32 + 8) \times 10$**

\_\_\_\_\_

(2 marks)

3 **Complete** this table.

Fraction	Decimal	Percentage
$\frac{3}{10}$	0.3	
		25%

(3 marks)

4 Work out.

a) **€5.75 + €2.25 = €**\_\_\_\_\_

b) **€2.50 × 4 = €**\_\_\_\_\_

c) **€5.00 ÷ 10 =** \_\_\_\_\_ **cent**

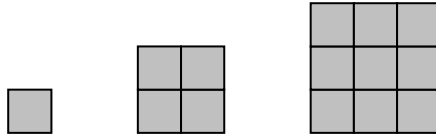
(3 marks)

5 a) Fill in the **missing numbers**.

(i) 5, 10, 15, \_\_\_\_\_, 25

(ii) 1, 2, 4, 8, \_\_\_\_\_, 32

b) Draw the **next shape**.



(3 marks)

6 This football costs **€24**.  
At a **sale** it is sold at **half price**.

a) Work out the **sale price** of the football.



€\_\_\_\_\_

b) At the sale, Pawlu buys **3 footballs**.  
**How much** does Pawlu pay for the 3 footballs?

€\_\_\_\_\_

(4 marks)

7 a) Fill in.

**10% of €500 = €\_\_\_\_\_**

b) Fill in.

$$\frac{7}{10} - \frac{3}{10} = \frac{\quad}{10} = \frac{2}{\quad}$$

(4 marks)

- 8 (a) Work out the **perimeter**.

4 cm

6 cm

**Perimeter** = \_\_\_\_\_ cm

- (b) Work out the **area**.

**Area** = \_\_\_\_\_ cm<sup>2</sup>

(4 marks)

# SECONDARY SCHOOL ANNUAL EXAMINATIONS 2010

Directorate for Quality and Standards in Education  
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D

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FORM 3

MATHEMATICS SCHEME D  
MAIN PAPER

TIME: 1h 30min

1	2	3	4	5	6	7	8	9	10	11	12	13	NC	Main	Total

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

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

Calculators are allowed but the necessary working must be shown.  
Answer all questions.

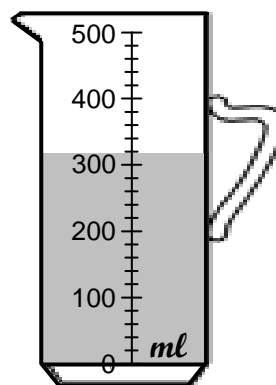
- 1 a) **Underline** the correct answer.

The **amount of water** in the jug is

(301 *ml*, 310 *ml*, 320 *ml*)

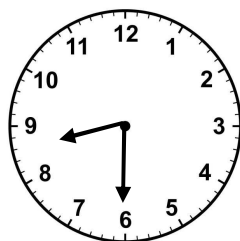
- b) Fill in.

4 litres = \_\_\_\_\_ *ml*

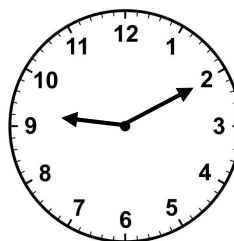


(2 marks)

2



First lesson begins



First lesson ends

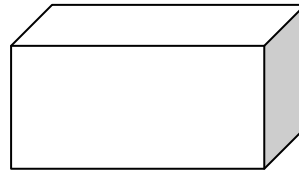
Fill in.

- a) The first lesson **begins** at \_\_\_\_\_ past \_\_\_\_\_.

- b) The first lesson is \_\_\_\_\_ **minutes** long.

(3 marks)

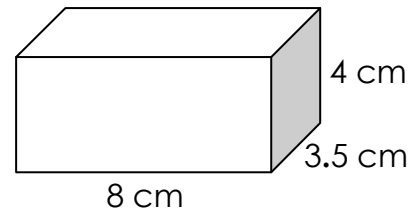
- 3 This shape is called a **cuboid**.



- a) Fill in.

A cuboid has \_\_\_\_\_ **faces**, \_\_\_\_\_ **edges** and \_\_\_\_\_ **vertices**.

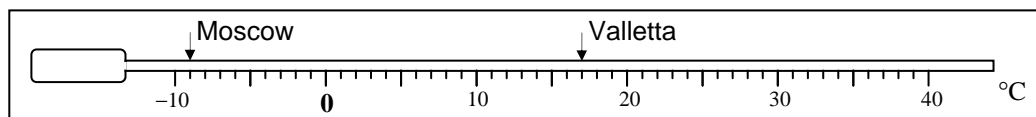
- b) Work out the **volume** of the cuboid.



Answer: \_\_\_\_\_  $\text{cm}^3$

(5 marks)

- 4 The diagram below shows the **temperatures** in a number of cities.



- a) Write down the temperatures in

**Moscow:** \_\_\_\_\_ **Valletta:** \_\_\_\_\_

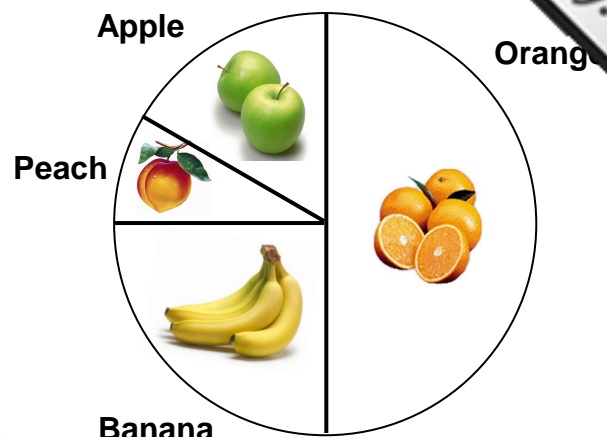
- b) Write down the **difference** between the temperature in **Valletta** and the temperature in **Moscow**.

**Difference:** \_\_\_\_\_  $^{\circ}\text{C}$

- c) The temperature in Milan is **-2  $^{\circ}\text{C}$** . Mark this temperature with **an arrow**.

(5 marks)

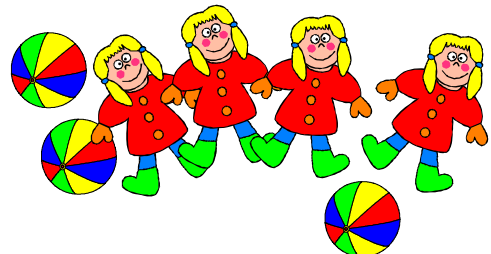
- 5 120 persons were asked to name their favourite fruit. Their answers are shown in the **pie chart**.



- a) Which is the **most favourite** fruit?
- \_\_\_\_\_
- b) What **fraction** like **oranges**?
- \_\_\_\_\_
- c) **How many** persons like **bananas**?
- \_\_\_\_\_ persons
- d) A person is chosen at random. What is the **probability** that the person likes **bananas**?
- \_\_\_\_\_

(5 marks)

- 6 a) Write down the ratio **BALLS : DOLLS**.



- b) Complete the following **ratios**.

$3 : 6$	$\longrightarrow$	$1 : \underline{\quad}$
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$2 : 3$	$\longrightarrow$	$4 : \underline{\quad}$
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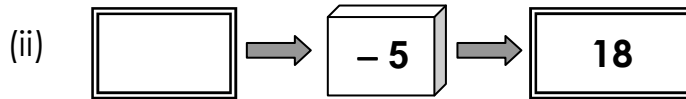
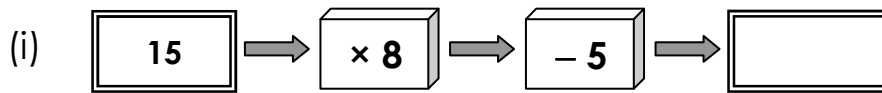
- c) In a class the ratio of **boys : girls** is **1 : 3**. There are 7 boys. **How many girls** are there in the class?

\_\_\_\_\_ girls

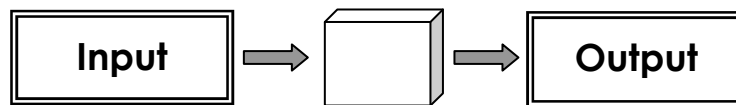


(5 marks)

7 a) Complete these **number machines**.

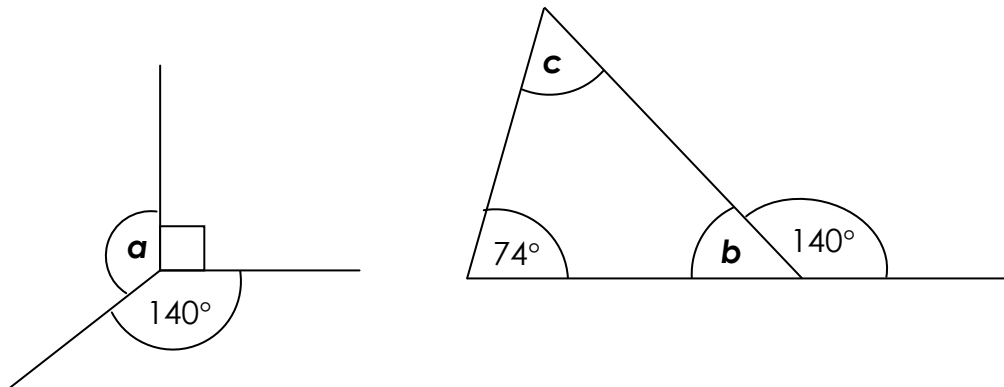


b) This number machine **doubles** the **input**.  
Complete the function machine.



(6 marks)

8 Work out the size of the **marked angles**.



$a =$  \_\_\_\_\_

$b =$  \_\_\_\_\_

$c =$  \_\_\_\_\_

(6 marks)



- 9 a) **Underline** the **bigger** quantity.

( $\frac{1}{4}$  of €84) OR (half of €50)

By how much is it bigger?

€\_\_\_\_\_

- b) Write in order, **largest first**.

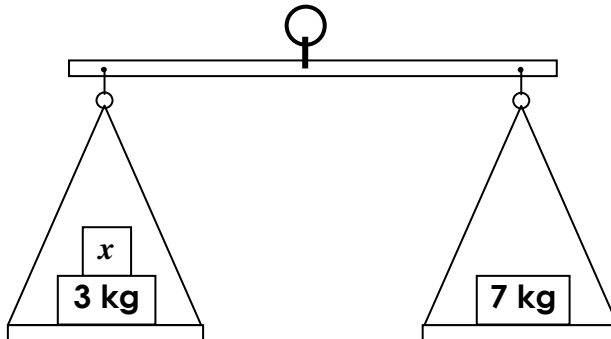
1.8, 0.8, 18,

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

(7 marks)

- 10 a) Find **the value of  $x$** .

$x$  = \_\_\_\_\_ kg



- b) (i) This LOGO statement draws a letter of the alphabet.  
Draw a sketch of the letter.

**PD FD 100 LT 90 FD 50 BK 100**

- (ii) Complete this LOGO statement to draw a **square**.

**PD REPEAT \_\_\_\_ [FD 80 RT \_\_\_\_ ]**

(6 marks)

11 The following are the **shoe sizes** of pupils in a class.

4 4 4 5 5 5 5 5 5  
 5 5 5 5 6 6 6 6 6  
 6 6 6 7 7 7 7 8 8



a) Complete the **frequency table**.

Shoe size	Frequency
4	
5	
6	
7	
8	2
<b>Total</b>	

b) Fill in.

**Largest size** = \_\_\_\_\_

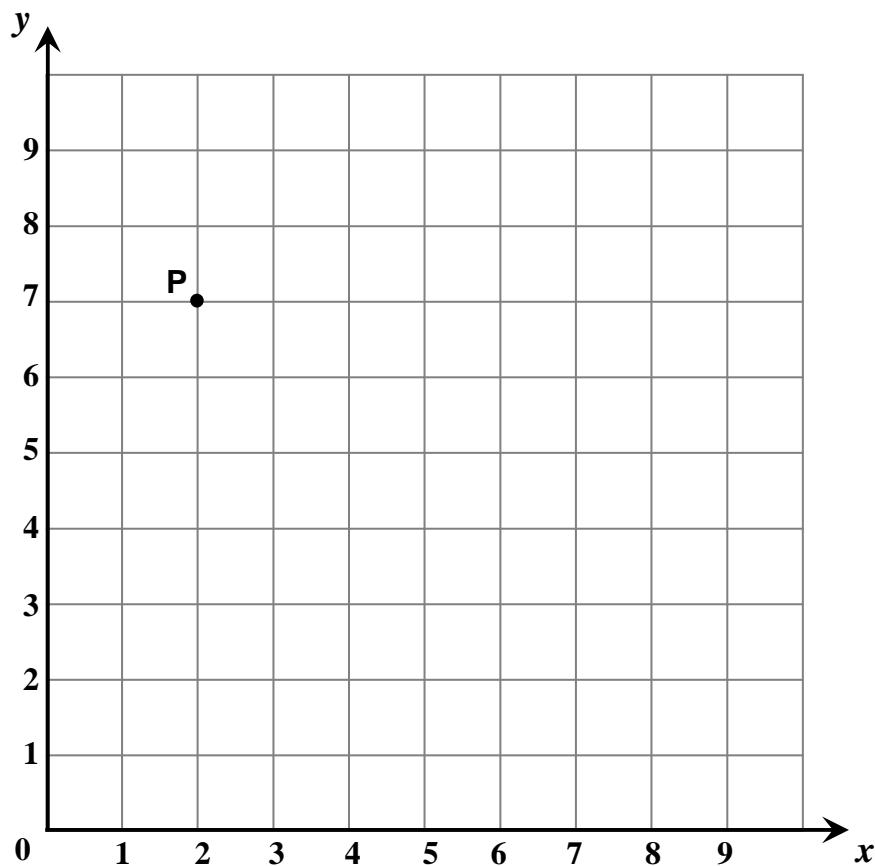
**Median** = \_\_\_\_\_

**Mode** = \_\_\_\_\_

**Range** = \_\_\_\_\_

(9 marks)

- 12 a) Write down the **coordinates** of point P. (      ,      )



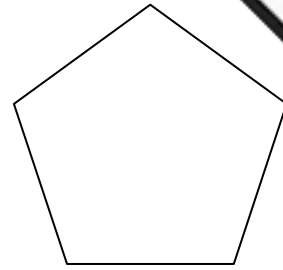
- b) **Plot** the points **(4, 5)** and **(8, 1)**.
- c) **Draw** a **line** passing through **all** the 3 points.
- d) Fill in the missing numbers **below**.

**(2, 3) (3, 4), (4, \_\_\_\_), (5, 6), (6, \_\_\_\_)**

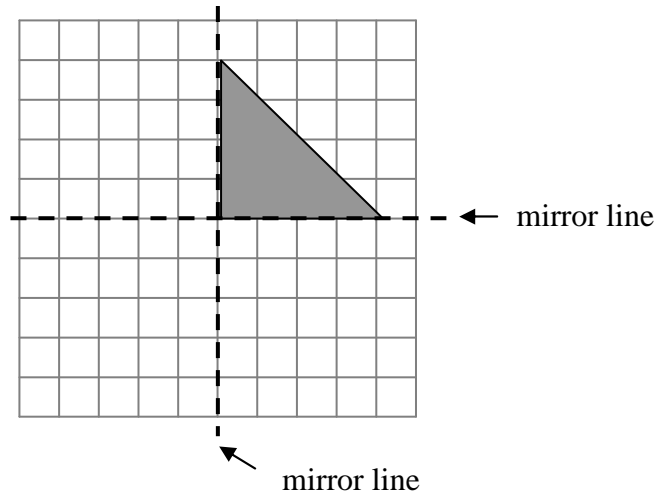
- e) **Plot** the points.
- f) **Join the points** with a **straight line**.

(8 marks)

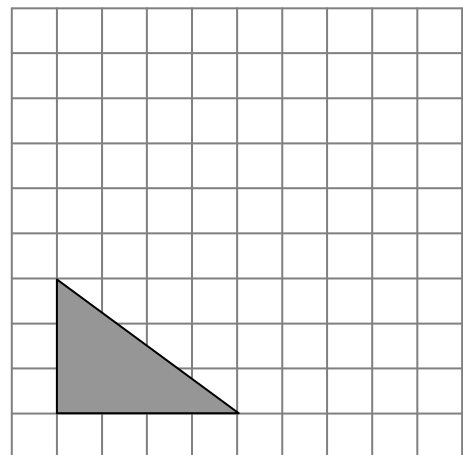
- 13 a) **Draw** all the **lines of symmetry** of this shape.



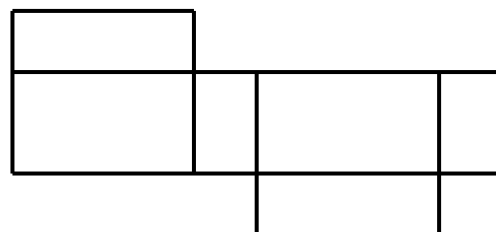
- b) **Reflect** the shape in the **mirror lines**.



- c) Draw the triangle after a **translation** of **4 to the right** and **5 up**.



- d) (i) The picture shows the net of a (**cube, cuboid, pyramid**).



- (ii) All the **faces** of a **cube** are (**triangles, rectangles, squares**).

(8 marks)