



FORM 3

MATHEMATICS TRACK 1
Main Paper

Time: 1 hr 30min

Name: _____

Class: _____

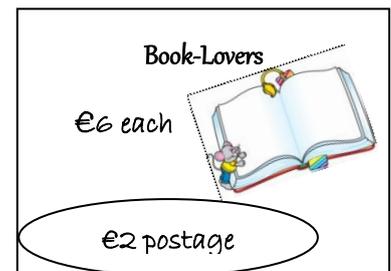
Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Main	NC	Total
Mark																	

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

1. An online bookshop sells books at €6 each and charges €2 postage fee for every order.

a) Complete the formula for the cost of any order.

$$\text{Cost (€)} = (\quad \times \text{ number of books}) + \quad$$



b) Use the formula to find the cost of 4 books.

Answer: € _____

(4 marks)

2. a) Round 4.6 to the nearest whole number.

Answer: _____

b) Round 3.458 to 2 decimal places.

Answer: _____

c) Choose the correct answer from the numbers in the box.

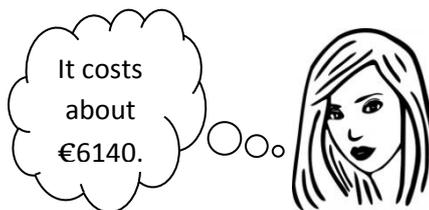


€6137



It costs about €6100.

Nathan

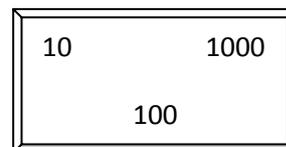


It costs about €6140.

Lucy

(i) Nathan is rounding to the nearest _____.

(ii) Lucy is rounding to the nearest _____.



(4 marks)

3. a) **Match** the following cards:

$$3b - a + 5b + 2a$$

$$2a$$

$$3a - a$$

$$a + 8b$$

b) **Factorise:**

$$9x - 15y = \underline{\quad} (\underline{\quad}x - \underline{\quad}y)$$

c) **Expand:**

$$2(3p + 2q) = \underline{\hspace{2cm}}$$

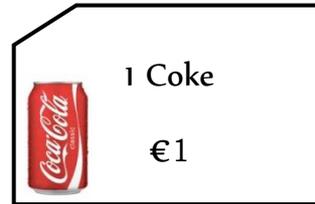
(5 marks)

Name _____

Class _____

**Track
1**

4. **Match** the statements with the correct calculation. (One calculation is extra.)



The change from €5 after buying 1 burger and 1 coke.

The cost of 4 burgers and 5 cokes.

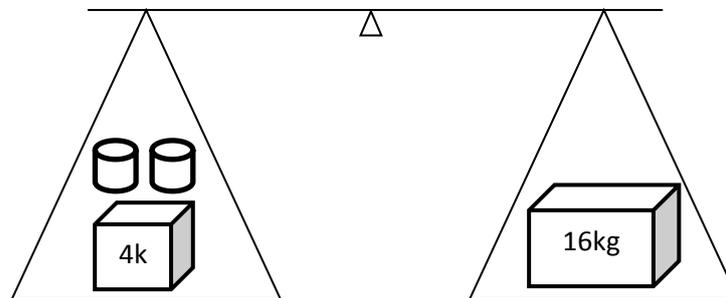
$$2 \times (3 + 1)$$

$$(4 \times 3) + (5 \times 1)$$

$$5 - (3 + 1)$$

(2 marks)

5. a) This scale is balanced. Find the weight of **one** of the two equal cylindrical parcels.



Answer: _____

b) Solve these equations:

(i) $g - 7 = 24$

$g =$ _____

(ii) $4h + 3 = 31$

$h =$ _____

(7 marks)

6. Here are yesterday's temperatures of some capital cities.

London -2°C

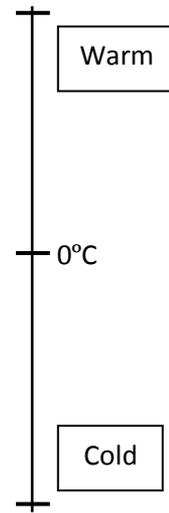
Berlin -5°C

Valletta 15°C

Rome -1°C

Madrid 9°C

Paris 4°C



a) Write down the cities in order, starting with the **coldest**.

1. _____ 2. _____ 3. _____
 4. _____ 5. _____ 6. _____

b) Work these out:

(i) $-3 + 7 =$ _____

(ii) $6 + (-1) =$ _____

(7 marks)

7. The ages of a group of children are as follows:

12 16 11 13 8

Calculate:

a) the mean

Answer: _____

b) the median

Answer: _____

c) the range

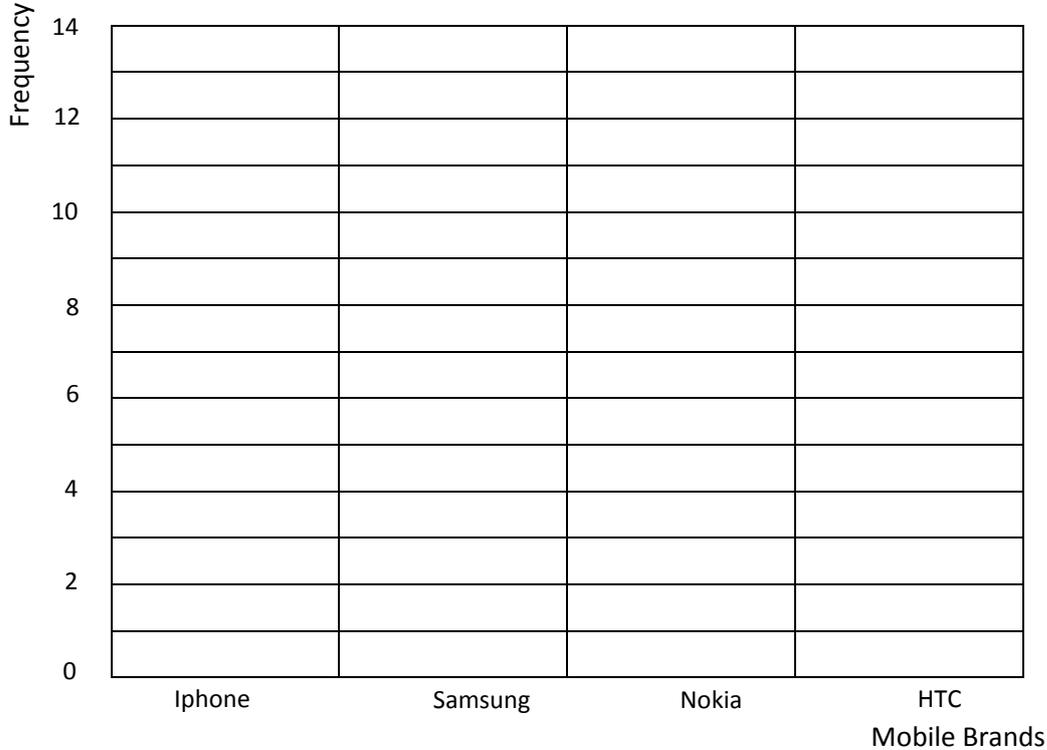
Answer: _____

(7 marks)

8. A class of students were asked to name their favourite mobile brand. This table shows the results:

Mobile Brand	Iphone	Samsung	Nokia	HTC
No. of Students	12	8	5	7

a) Draw a bar chart to represent this information.



b) What is the total number of students in the class?

Answer: _____ students

c) Which mobile brand is the most popular amongst them?

Answer: _____

(7 marks)

9. During a sale prices are **reduced** by 20%. Paula buys a sweater which costs €25.

i) How much money does she **save**?

Answer: € _____

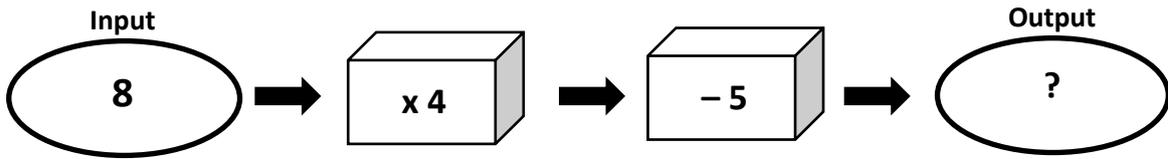
ii) How much does she pay for the sweater **during the sale**?

Answer: € _____

(4 marks)

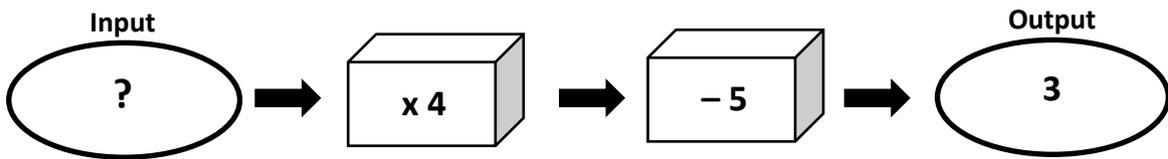
10. Look at this number machine.

a) Work out the output when the input is 8.



Answer: _____

b) If the output is 3 what is the input?

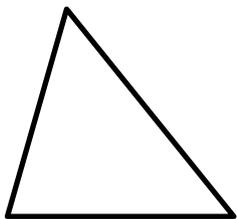


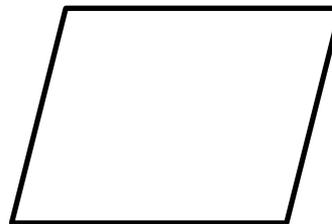
Answer: _____

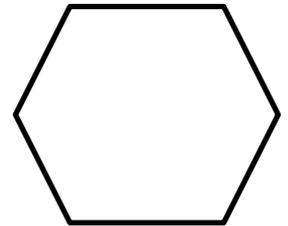
(5 marks)

11. a) Write the full name of the following shapes: (choose from the list on the left side)

- | List |
|--------------------|
| Parallelogram |
| Isosceles Triangle |
| Square |
| Rectangle |
| Pentagon |
| Hexagon |
| Scalene triangle |



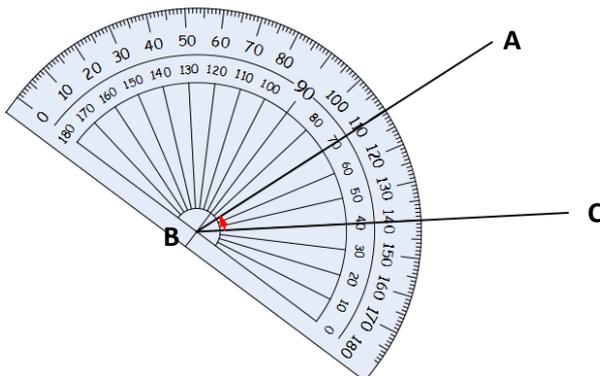




b) Fill in:

A regular polygon has all sides _____ and all _____ equal.

c) Measure (or read) angle ABC

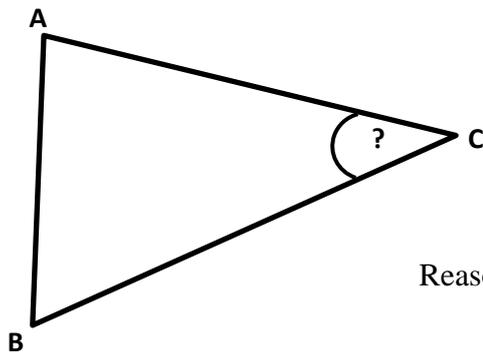


Answer: Angle ABC = _____⁰

(7 marks)

12. a) **On the diagram** below mark (write) angle **A** as 85° and mark angle **B** as 60°

b) Find angle **C** and give reason for your answer

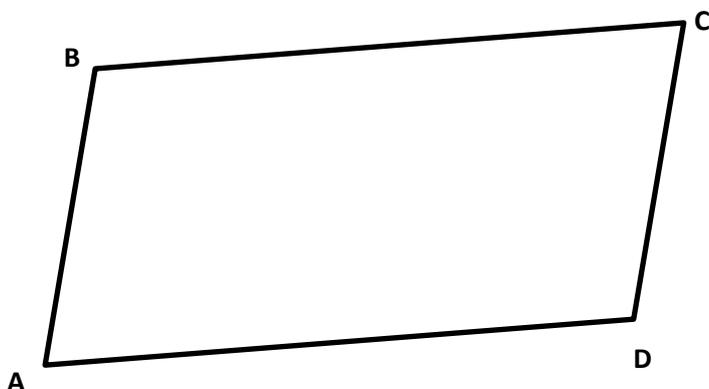


Answer: angle **C** = ____⁰

Reason: _____

(4 marks)

13. a)



Choose the **five** words from the following list to fill in the spaces **correctly**.

kite	line BD	opposite	line AD
parallelogram	prism	rhombus	line CD

- The above shape is a _____
- Line AB is equal and parallel to _____
- Similarly, line BC is equal and parallel to _____
- _____ angles are equal.
- If all sides are equal then shape is called a _____

(5 marks)

14. a) Fill in

$$\frac{9}{10} = \frac{\quad}{100} = \text{---}\%$$

b) Write $\frac{15}{21}$ in its simplest form

Answer: _____

c) Work out $\frac{4}{5} + \frac{3}{5}$

Answer: _____

b) Work out $\frac{3}{4} + \frac{2}{3}$

Answer: _____

(7 marks)

End of Paper