DEPARTMENT FOR CURRICULUM,
LIFELONG LEARNING AND EMPLOYABILITY
Directorate for Learning and Assessment Programmes
Educational Assessment Unit

Track 3

Annual Examinations for Middle Schools 2023

YEAR 7 **MATHEMATICS** **TIME: 1h 30min**
Main Paper

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

DO NOT WRITE ABOVE THIS LINE

Name: _____ Class: _____

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

1. a) Write in words: 3 405 078

_____

_____

b) Write in ascending order.

151 763 115 763 116 753 116 573

Ans: _____, _____, _____, _____

c) Write 15% as a fraction in its lowest terms.

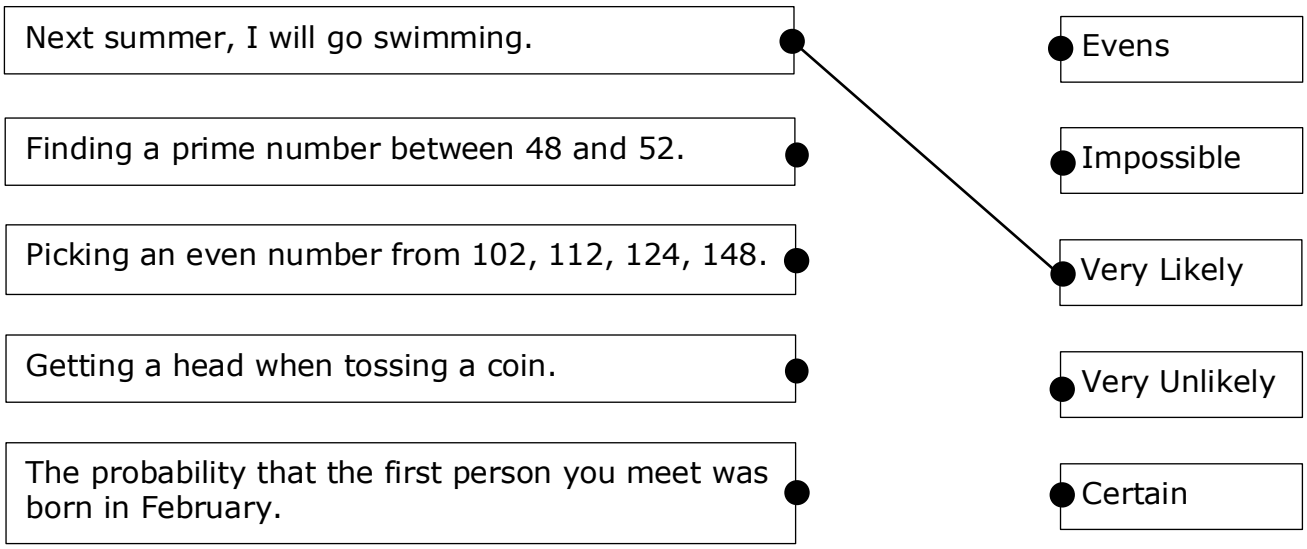
Ans: _____

d) Convert 74% to a decimal number.

Ans: _____

(5 marks)

2. Match the following statements. The first one is given as an example.



(4 marks)

3. Fill in the Carroll Diagram using the numbers below.

3, 6, 5, 24, 10, 12, 20, 40

	Factors of 24	Factors of 40
Odd		
Even		

(3 marks)

4. a) Rykon got 6 marks out of 20 in his English test.
Write his mark as a percentage.

Ans: _____

b) Jacob invested his savings of €775 in a bank account at 3% interest per annum. Calculate the interest earned after one year.

Ans: _____

(4 marks)

5. a) Simplify:

$$3p - 5 + 7h - 9h + 2p - 4$$

Ans: _____

b) i) Craig buys the following items:

two laptops, costing €x each

one television at €y

five sets of headphones at €z per set

Write a formula for the total cost, C.

Ans: C = _____

ii) Use the formula found in part (i) to calculate the total cost.

Ans: _____

(5 marks)

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6. Dubai is 3 hours ahead of Malta. Yesterday, there was a flight at 11:20 from Malta to Dubai.

a) What was the time in Dubai when the aeroplane left Malta?

i) Write your answer in 24-hour clock.

Ans: _____

ii) Write your answer in 12-hour clock.

Ans: _____

b) The flight took 5 hours 33 minutes.

Convert this time to minutes.

Ans: _____

c) What was the time in Dubai when the aeroplane landed?

Write your answer using the 24-hour clock.

Ans: _____

(5 marks)

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7. Calculate the size of the marked angles, giving a reason for each answer.

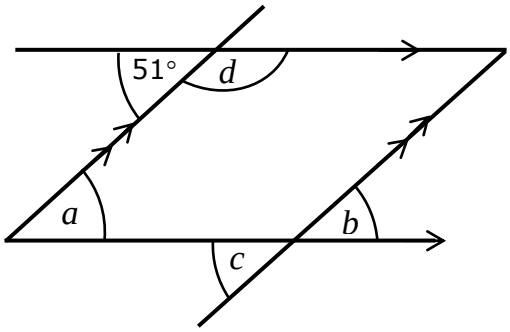


Diagram not drawn to scale

a = _____ Reason: _____

b = _____ Reason: _____

c = _____ Reason: _____

d = _____ Reason: _____

(8 marks)

8.

Pattern 1 Pattern 2 Pattern 3

a) Draw Pattern 4.

b) Complete the table.

Pattern Number	**1**	**2**	**3**	**4**	**5**	**6**
Number of triangles	2	6				

c) How many triangles will Pattern 10 have?

Ans: _____

(6 marks)

9. Grandma measured the heights of her nephews. These are their heights:

78 cm, 80 cm, 1 m, 86 cm, 1.08 m, 83 cm, 1.49 m, 1 m

a) i) What is the mode?

Ans: _____

ii) Work out the median.

Ans: _____

iii) Work out the range.

Ans: _____

b) Grandma states that three of her nephews are taller than the mean height. Is she correct? Explain by showing your working.

(7 marks)

10. Tick (✓) each statement either True or False.

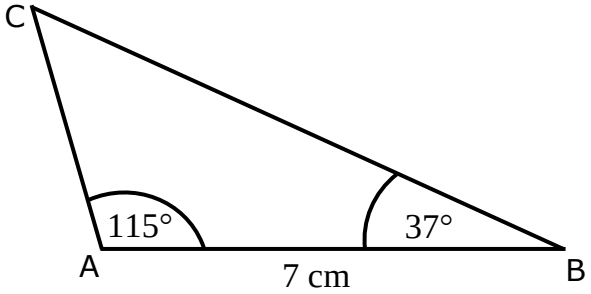
		True	**False**
a)	The square of 15 is 625.		
b)	The cube of 3 is 27.		
c)	When 145.3792 is rounded to 2 d.p., the answer is 145.38		
d)	An angle of 315° is a reflex angle.		
e)	A parallelogram has two lines of symmetry.		
f)	A rhombus has one line of symmetry.		
g)	A set of two or more parallel lines are straight lines that always keep the same distance apart and they never meet.		

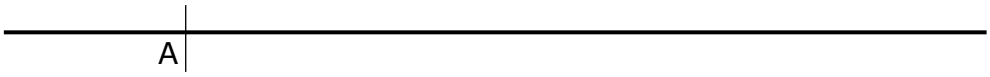
(7 marks)

11. a) The diagram shows a sketch of triangle ABC.

Use ruler and protractor to draw an accurate drawing of triangle ABC.

Start from point A below.





b) Underline the correct answer.

Triangle ABC is (an isosceles, an equilateral, a scalene) triangle.

c) Measure side BC.

Side BC = _____

(6 marks)

12. a) Write the coordinates of Point T.

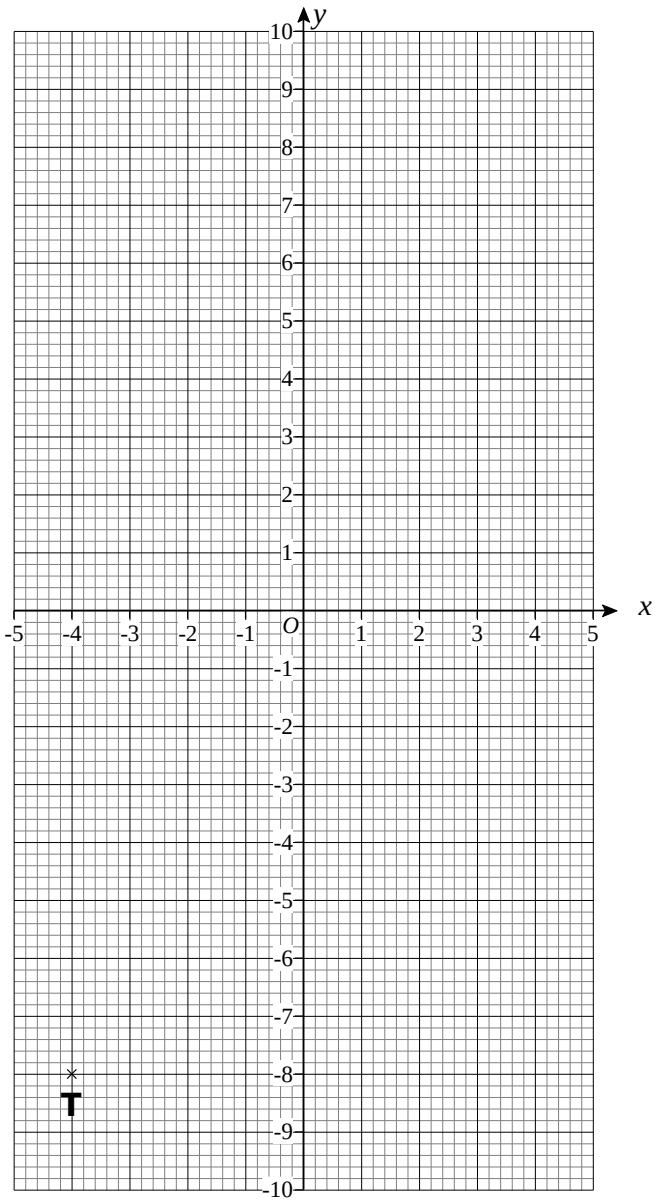
Ans: _____

b) Plot the point S (-2, -4).

c) Work out the y-coordinates lying on the line $y = 2x$

i) when x = 1 Ans: (1, _____)

ii) when x = 3 Ans: (3, _____)



d) Plot the points found in question (c).

Join the points to form the graph of $y = 2x$.

Use your graph to find the value of y when x = 3.5

Ans: _____

(5 marks)

13. a) Yanika cuts a triangle from a rectangular piece of wood leaving the shape below.

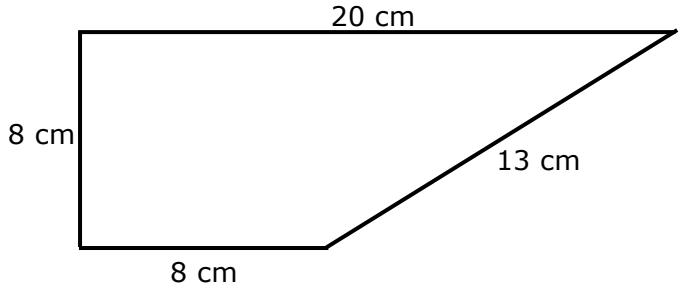


Diagram not drawn to scale

i) Calculate the area of this remaining piece of wood.

Ans: _____

ii) Yanika needs 30 ml of paint to cover 16 cm^2 of wood. How much paint is needed to paint this remaining piece of wood on both sides?

Ans: _____

b) Work out the volume of this shape.

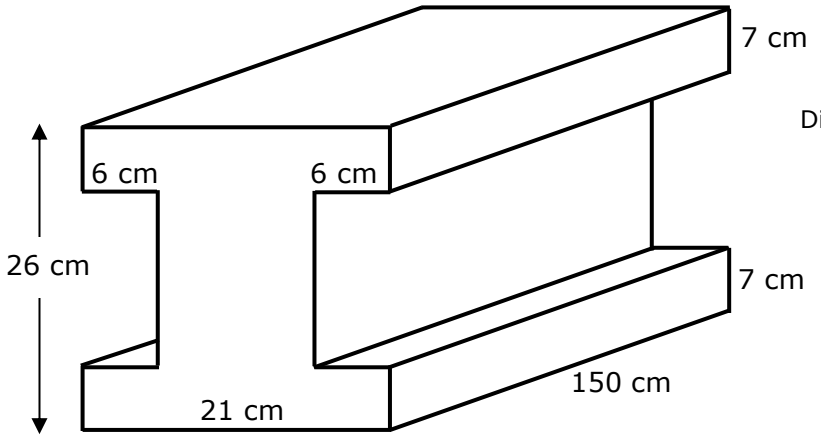


Diagram not drawn to scale

Ans: _____

(10 marks)

END OF MAIN PAPER