

Index No _____



GOVERNMENT OF MALTA
MINISTRY FOR EDUCATION, SPORT, YOUTH
RESEARCH AND INNOVATION
DEPARTMENT OF EXAMINATIONS



**Candidate's name must NOT be written on any sheet of the examination paper.
Index Number must be written once ONLY above the perforation.**

Qualifying Examination for Supply Learning Support Educators

June 2026

Subject: Mathematics

Date: 25th June 2026

Time: 16:00 – 17:30 (One hour thirty minutes)

Instructions to candidates:

- Answer ALL questions.
- Write your answers in the space available on the examination paper.
- Show clearly all the necessary steps, explanations, and construction lines in your working.
- Unless otherwise stated, diagrams are drawn to scale.
- The use of non-programmable scientific calculators with statistical functions and of mathematical instruments is allowed.
- Candidates are allowed to use transparencies for drawing transformations.
- This paper carries a total of 100 marks.

Question No.	1	2	3	4	5	6	7	8
Mark								

Question No.	9	10	11	12	13	14	15	16	Total
Mark									

1. (a) Evaluate: $(-8 - 5) + 12 \times 5$

Ans: _____

- (b) Write the following numbers in order, starting from the smallest.

$$(1.5)^2, \sqrt{8}, 2.44, \frac{15}{7}$$

Ans: _____ , _____ , _____ , _____

(4 marks)

2. (a) Write as a single number in index form: $5^6 \times 5^3 \div 5^5$

Ans: _____

- (b) Consider the sequence: 50, 48, 46, 44, ...

- (i) Write the next two terms.

Ans: _____

- (ii) Write an expression for the n^{th} term of the sequence.

Ans: _____

- (iii) Work out the 80th term.

Ans: _____

(5 marks)

3. (a) A villa, bought for €565 000, is sold for €870 000.
Calculate the profit as a percentage of the buying price.

Ans: _____

- (b) When the villa was sold for €870 000, an agency fee was paid.

This fee was calculated as follows:

- 3% on the first €500 000, and
- 5.5% on the remaining amount.

Calculate the agency's total fee.

Ans: _____

(6 marks)

4. An espresso coffee mixture is made up of a blend of two different coffees, Arabica and Robusta, mixed in the ratio 7 : 3 respectively.
Arabica coffee is sold at €28.60 per kg and Robusta coffee is sold at €16.20 per kg.
A coffee shop buys a 25 kg sack of this espresso coffee mixture.
How much does it cost?

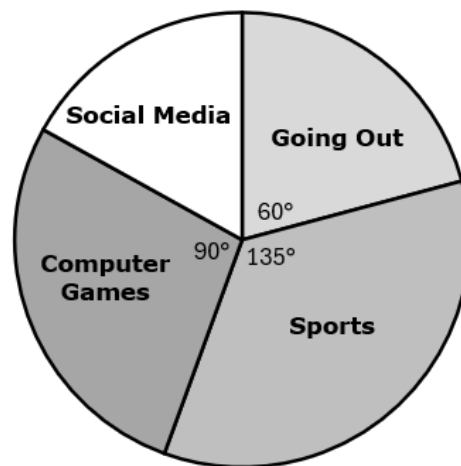
Ans: _____

(5 marks)

5. (a) A survey is carried out in a school. It asks the students how they spend a typical Saturday afternoon.

The results are represented in the pie chart.

- (i) Work out the angle that represents Social Media.



Ans: _____

Diagram NOT to scale

- (ii) Forty students replied Going Out.
How many students in total participated in the survey?

Ans: _____

- (b) The following are the masses, in kg, of eight persons.

64 , 65 , 67 , 67 , 70 , 72 , 76 , 80

- (i) What is the mode?

Ans: _____

- (ii) Work out the median.

Ans: _____

- (iii) What is the range?

Ans: _____

- (c) The mean mass of 7 dancers is 58 kg.
The mean mass of 8 weightlifters is 112 kg.
Calculate the mean mass of all.

Ans: _____

(12 marks)

6. (a) The exterior angles of a polygon add up to _____.
- (b) Work out the value of one interior angle of a regular hexagon.

Ans: _____

(3 marks)

7. Xander picks at random one yoghurt and one fruit from the canteen.

The canteen has the following amounts of yoghurt and fruit for sale:

- Yoghurt: 2 peach (P), 1 strawberry (S) and 2 banana (B)
- Fruit: 2 apples (A) and 1 orange (O)

- (a) Complete the possibility space below.

		Yoghurt				
		P	P	S	B	B
Fruit	A					
	A					
	O					

- (b) Work out the probability that Xander:

- (i) picks a peach yoghurt and an orange

Ans: _____

- (ii) does not pick an apple.

Ans: _____

(4 marks)

8. P, Q, R and S are points on a circle of centre O.

Calculate the value of the angles below, giving reasons for your answers.

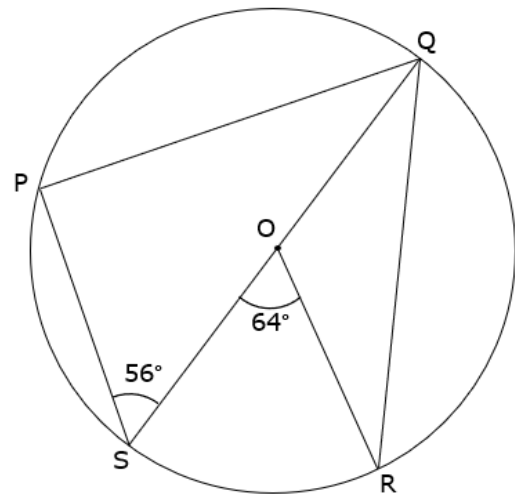


Diagram NOT to scale

- (a) $\angle PQS =$ _____ Reason: _____
- (b) $\angle SQR =$ _____ Reason: _____
- (c) $\angle ORQ =$ _____ Reason: _____

(6 marks)

9. Carlos buys one box of cat food and five packets of treats. He pays €22.50. Sophia buys two boxes of cat food and three packets of treats, paying €31.

- (a) Using x for the number of boxes of cat food and y for the number of packets of treats, write two equations to represent the above information.

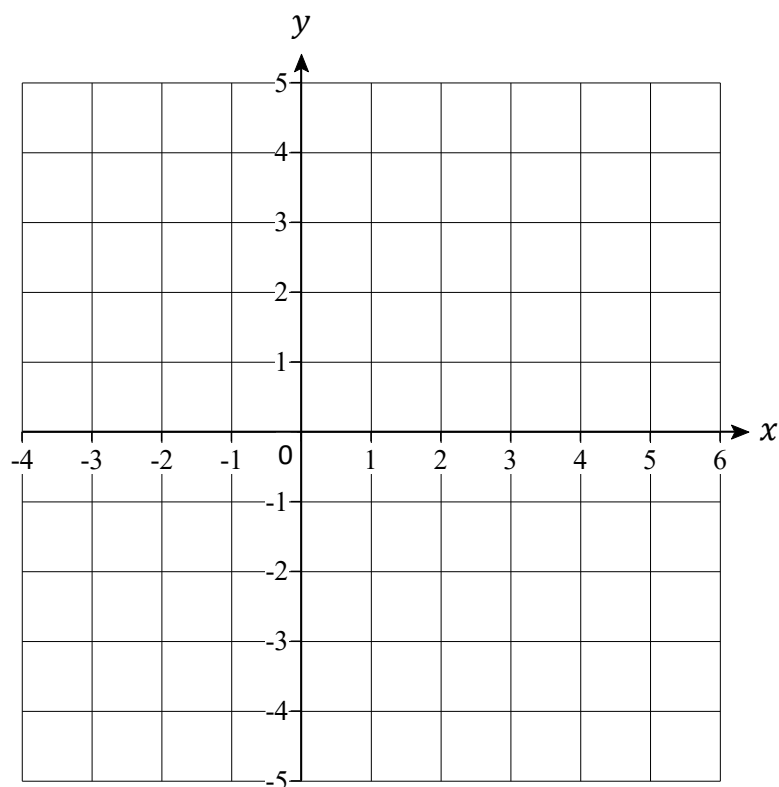
Ans: _____; _____

- (b) Solve the two equations simultaneously to find the cost of one box of cat food and one packet of treats.

Ans: $x =$ _____; $y =$ _____

(6 marks)

10. This question is about straight lines.



- (a) A straight line passes through the point $(5, 3)$.
Plot this point on the grid.
- (b) The y -intercept of this straight line is -2 .
Plot the y -intercept on the grid and draw a straight line joining the two points.
- (c) Work out the gradient of this straight line.

Ans: _____

- (d) Write the equation of this straight line.

Ans: _____

(5 marks)

11. (a) Use the function $g(x) = 10 - 3x$ to answer the questions below.

(i) Work out the value of $g(2)$.

Ans: _____

(ii) Solve: $g(x) = -23$.

Ans: _____

(b) Expand and simplify: $x(x + 6) - 2(x + 8)$

Ans: _____

(c) Factorise completely: $16x^3y - 24x$

Ans: _____

(9 marks)

12. (a) Make x the subject of the formula: $a = dc - px$

Ans: _____

(b) Solve the equation: $4x - 9 = 36 - 11x$

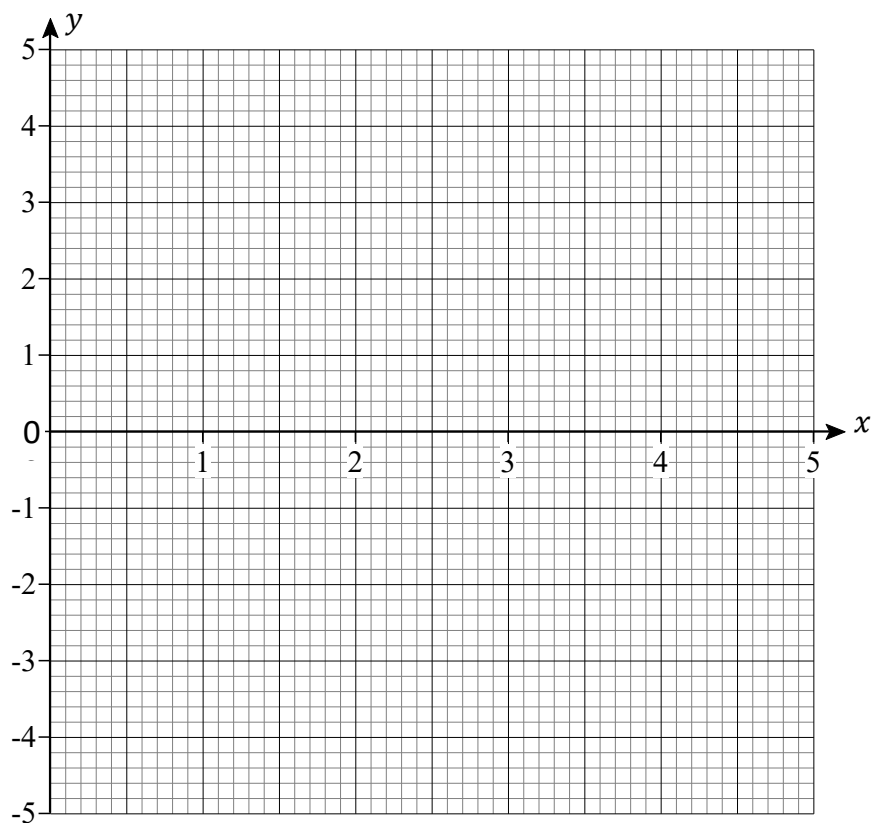
Ans: _____

(4 marks)

13. (a) Complete the table for the quadratic equation $y = -x^2 + 6x - 5$ for the given values of x .

x	0	1	2	3	4	5
$-x^2$	0	-1			-16	-25
$6x$	0	6			24	30
-5	-5	-5	-5	-5	-5	-5
y	-5	0			3	0

- (b) Use the table to draw the graph of $y = -x^2 + 6x - 5$.



- (c) Use your graph to determine the maximum value of y .

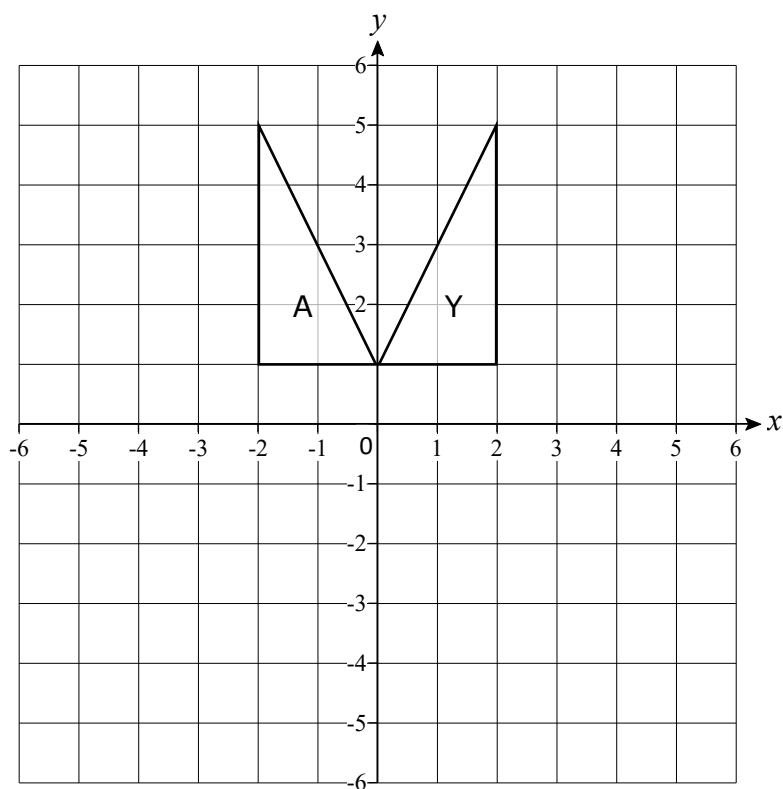
Ans: _____

- (d) From the graph, find the values of x when y is 0.

Ans: $x =$ _____; _____

(7 marks)

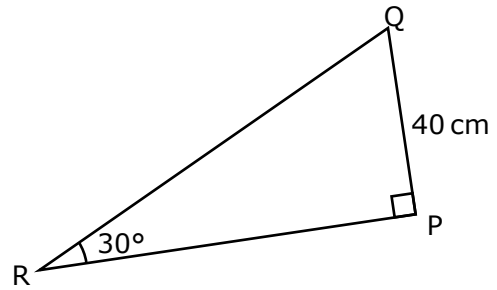
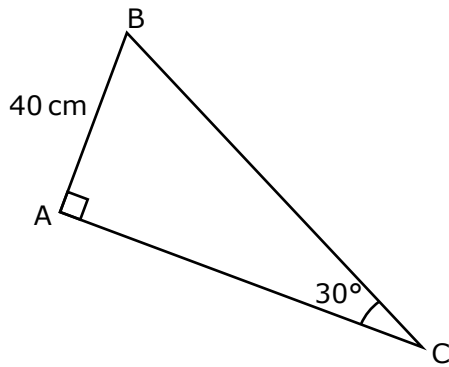
14. The grid shows two shapes A and Y.



- (a) Draw the reflection of shape A in the x -axis. Label the image B.
- (b) Rotate shape A by 180° about O. Label the image C.
- (c) Draw the enlargement of shape A with a scale factor 2 and centre (2, 6). Label the image D.
- (d) Describe fully the transformation from shape A to shape Y.

(8 marks)

15. The students in a class cut two triangles out of paper, with dimensions as shown below.



Diagrams NOT to scale

(a) Show that triangles ABC and PQR are congruent.

(b) Work out the value of side AC.

Ans: _____

(c) The students place the two triangles next to each other to form a kite as shown in the diagram.

They attach rods around the perimeter of the kite. Each side is formed from one single piece of rod.

Rods are sold in lengths of 90 cm at a cost of €4.70 each.

How much do the students spend on the rods?

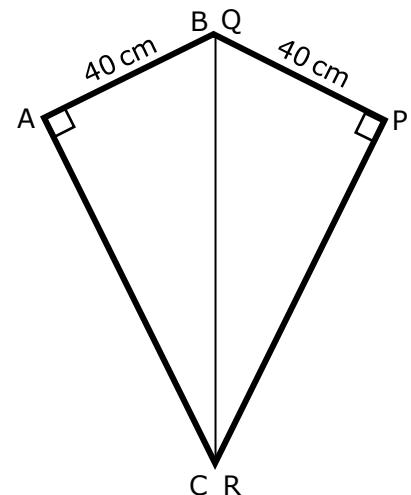
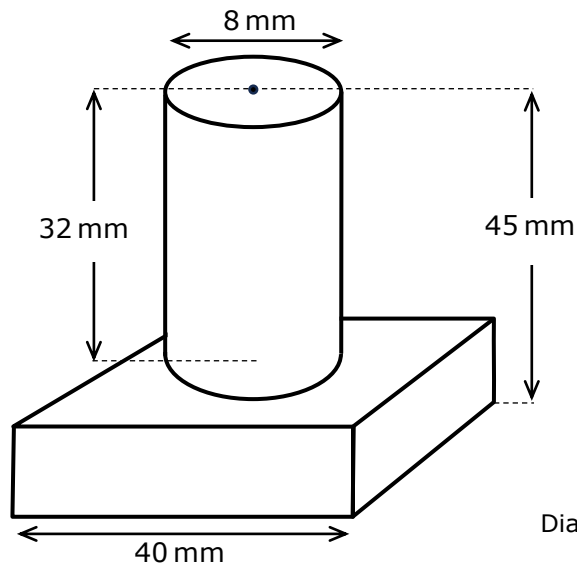


Diagram NOT to scale

Ans: _____

(8 marks)

16. The diagram below shows a compound shape, made up of a cylinder and a cuboid.



(a) The cylinder has a diameter of 8 mm, and its height is 32 mm.

(i) What is the radius of the cylinder?

Ans: _____

(ii) Show that the area of the circle at the top of the cylinder is 50 mm^2 , when rounded to the nearest whole number.

(iii) Work out the volume of the cylinder.

Ans: _____

(b) The cuboid has a square base of side 40 mm.
The total height of the compound shape is 45 mm.

(i) What is the height of the cuboid?

Ans: _____

(ii) Work out the total volume of the compound shape.

Ans: _____

(8 marks)

End of Paper