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**Examination for the Enlistment of Soldiers in the  
Armed Forces of Malta**

**2022**

**Supplementary Paper**

**Subject: Mathematics**

**Date: 2022**

**Time: 12.00 – 13.00 (One hour)**

**Instructions to candidates:**

- This examination paper consists of THREE sections: A, B and C. Answer all 50 questions in these sections.
- Each question contains four possible answers, but only ONE is correct.
- Enter your answers on the Answer Sheet provided. Mark ONLY the correct answer by using a pencil.

e.g. If answer C is selected, fill in the appropriate circle as shown below.

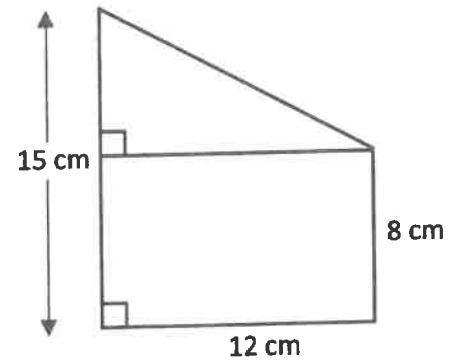
50.	<input type="radio"/> A	<input type="radio"/> B	<input checked="" type="radio"/> C	<input type="radio"/> D
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- Each question carries two (2) marks.
- Diagrams are NOT drawn to scale.
- The use of calculators is allowed.

17 The probability that tomorrow rains is 0.35. What is the probability that tomorrow it will not rain?

- A)  $\frac{7}{20}$       B)  $\frac{35}{20}$       C)  $\frac{3}{20}$       D)  $\frac{13}{20}$

18 Work out the total area of the shape.

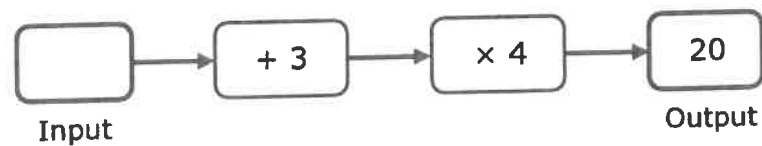


- A) 96 cm<sup>2</sup>      B) 138 cm<sup>2</sup>      C) 152 cm<sup>2</sup>      D) 180 cm<sup>2</sup>

19 Find the value of  $7a - 3b$  when  $a = 6$  and  $b = 4$ .

- A) 54      B) 46      C) 30      D) 21

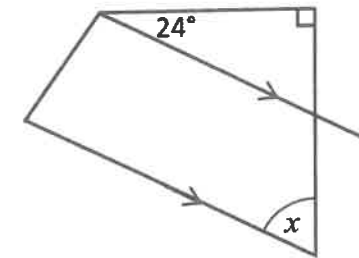
20 Calculate the input number of the following number machine.



- A) 17      B) 11      C) 8      D) 2

20 x 2 marks = 40 marks

46 What is the size of the marked angle?



- A) 66°      B) 24°      C) 80°      D) 104°

47 A tin box is completely filled with biscuits. Claire eats  $\frac{1}{4}$  and Brian eats  $\frac{1}{3}$  of the rest. What fraction is left?

- A)  $\frac{1}{2}$       B)  $\frac{2}{3}$       C)  $\frac{1}{4}$       D)  $\frac{3}{4}$

48 Which of the following is false?

- A)  $\frac{3}{8} = 0.375$       B)  $\frac{4}{5} > \frac{2}{3}$       C)  $\frac{6}{7} < 0.857$       D)  $\frac{3}{5} = \frac{54}{90}$

49 The composition of 50 kg of bronze is 78% copper, 12% tin and the rest is zinc. How much zinc is used?

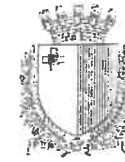
- A) 1 kg      B) 2 kg      C) 2.5 kg      D) 5 kg

50 A bus leaves every 5 minutes and a minibus leaves every 8 minutes. The bus and the minivan leave together at 06:00 am. At what time do they next leave together?

- A) 06:10 am      B) 06:20 am      C) 06:30 am      D) 06:40 am

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**TOTAL: 100 MARKS**



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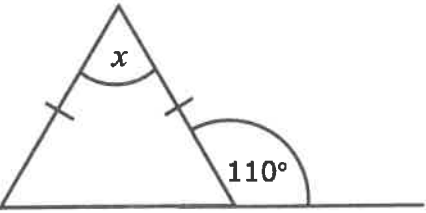
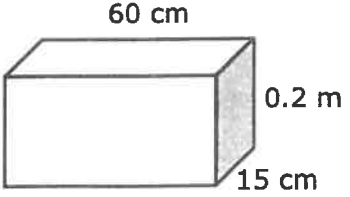
## Section A

This Section contains twenty (20) questions (from 1 to 20).  
Answer ALL questions.

1	Multiply 108 by 1.25	A) 86.4	B) 135	C) 13.5	D) 8.64
2	Six identical bottles of wine cost €57.30. How much does one bottle of wine cost?	A) €9.55	B) €7.30	C) €5.73	D) €7.80
3	$\frac{2}{5}$ is the same as:	A) 4%	B) 10%	C) 40%	D) 5%
4	Change 1.25 hours into minutes.	A) 45 minutes	B) 65 minutes	C) 85 minutes	D) 75 minutes
5	Work out: $\frac{1}{8}$ of 432	A) 378	B) 54	C) 440	D) 43
6	How many faces does a cuboid have?	A) 12	B) 8	C) 6	D) 4
7	Which statement is false? A) 23 is an odd number B) 21 is a prime number C) 25 is the square of 5 D) 27 is a multiple of 3				
8	Work out 40% of €720.	A) €432	B) €288	C) €360	D) €180

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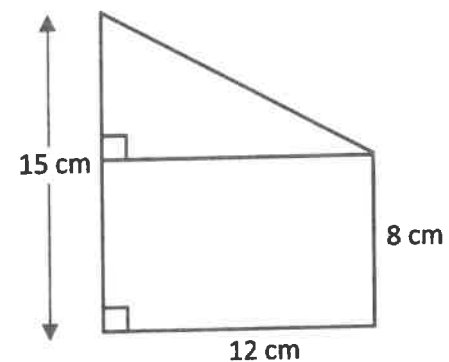
End of Paper

9	Simplify the ratio: 1.8 : 3.6	A) 3 : 5	B) 12 : 30	C) 1 : 2	D) 2 : 3
10	Simplify: $11b + 9 - 7b - 6$	A) $18b - 3$	B) $4b + 15$	C) $18b + 15$	D) $4b + 3$
11	A quadrilateral with equal sides, equal diagonals and all angles right angled is called:	A) parallelogram	B) rectangle	C) square	D) trapezium
12	Calculate angle $x$ .				
13	Calculate the mean of the following set of numbers. 12, 11, 15, 12, 9, 10	A) 6	B) 10	C) 11.5	D) 12
14	Which of the following is not equivalent to $\frac{4}{5}$ ?	A) $\frac{8}{10}$	B) $\frac{20}{25}$	C) $\frac{12}{15}$	D) $\frac{6}{8}$
15	Work out: $3 + 2 \times 8 - 7$	A) 12	B) 33	C) 5	D) 6
16	Work out the volume of this cuboid in $\text{cm}^3$ .				
		A) $18\,000\text{ cm}^3$	B) $1800\text{ cm}^3$	C) $180\text{ cm}^3$	D) $18\text{ cm}^3$

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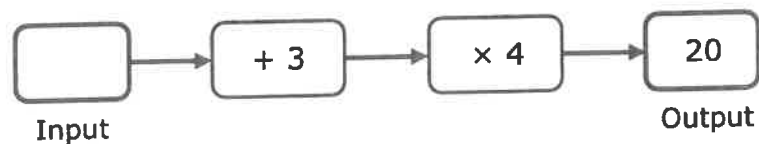


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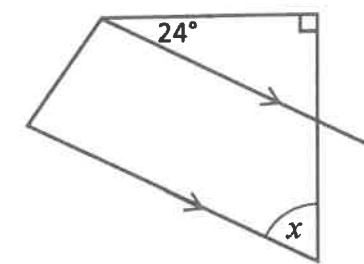
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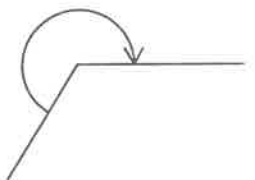
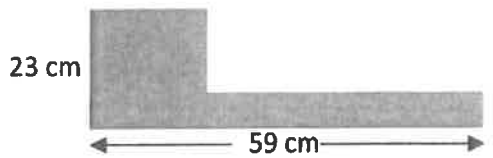
10 x 2 marks = **20 marks**

**TOTAL: 100 MARKS**

**Section C**

This Section contains ten (10) questions (from 41 to 50).

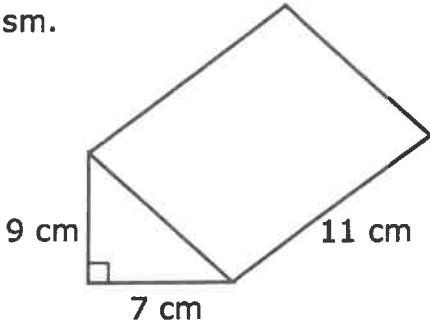
Answer ALL questions.

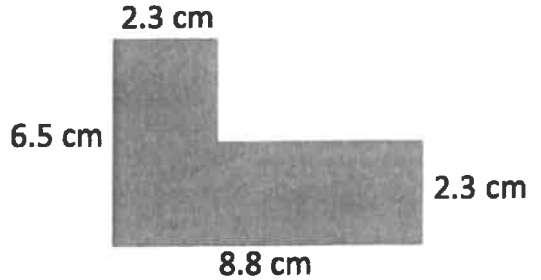
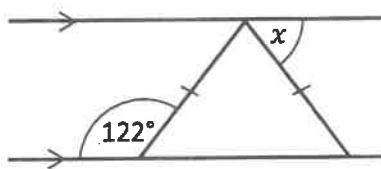
41	A machine can make 1,152,000 nails in 18 hours. How many nails can the machine make in one and a half minutes?	A) 1600	B) 27	C) 24,000	D) 1,152
42	A woman buys 4 kg of potatoes at 82c per kg and 1.5 kg of tomatoes at €1.24 per kg. What is the total cost?	A) €2.25	B) €5.14	C) €7.56	D) €4.95
43	The value of $\sqrt{(38.5 + 9.42) \times 2.6^2}$ correct to the nearest whole number is:	A) 70	B) 18	C) 10	D) 12
44	The approximate size of the marked angle is: 	A) 60°	B) 120°	C) 200°	D) 240°
45	What is the perimeter of this shape? 	A) 1357 cm	B) 164 cm	C) 72 cm	D) 328 cm

**Section B**

This Section contains twenty (20) questions (from 21 to 40). Answer ALL questions.

21	Use your calculator to work out: $\frac{3.6 \times 8.5}{1.7}$	A) 7.12	B) 19.125	C) 18	D) 1.8
22	Six cinema tickets cost €47.40. What is the cost of five cinema tickets?	A) €39.50	B) €9.48	C) €41.40	D) €56.88
23	In the sequence 79 , 76 , 73 , 70 , ___ , ___ , ___ , the missing three numbers are:	A) 65, 62, 59	B) 67, 64, 61	C) 68, 65, 63	D) 66, 63, 60
24	85% written as a decimal is:	A) 0.805	B) 0.85	C) 0.0085	D) 0.085
25	Work out $\frac{4}{7} \times \frac{42}{24}$ .	A) 1	B) $\frac{6}{7}$	C) $\frac{1}{6}$	D) $\frac{1}{3}$
26	These are the marks scored in eight tests: 57, 64, 71, 53, 57, 62, 84, 75 The median mark is.	A) 55	B) 63	C) 65.4	D) 57
27	The angles of a quadrilateral are 64°, 85°, 106° and <i>a</i> . Calculate the value of <i>a</i> .	A) 116°	B) 74°	C) 105°	D) 95°

28	Which of the following are two common factors of 156 and 234? A) 4 and 13      B) 3 and 13      C) 2 and 9      D) 3 and 4
29	What percentage of €240 is €48? A) 5%      B) 60%      C) 20%      D) 12%
30	Calculate the volume of this triangular prism. A) 176 cm <sup>3</sup> B) 693 cm <sup>3</sup> C) 231 cm <sup>3</sup> D) 346.5 cm <sup>3</sup>
	
31	In a game Rob has 25 points. During the game he scores -6 and -9 points. What is his new score? A) 40      B) 22      C) 28      D) 10
32	Two brothers start a business. The ratio of Paul's investment to Jacob's investment is 3 : 4. The two brothers share a profit of €2940 in the same ratio as their investment. How much does Jacob receive? A) €1680      B) €1470      C) €1260      D) €420
33	A coat costs €128. Calculate its cost in US Dollars (USD), if 1.2 USD = €1. A) USD 126.80      B) USD 106.67      C) USD 153.60      D) USD 129.20
34	At the start of a journey a tank of petrol is $\frac{2}{3}$ full. At the end of the journey the petrol tank is $\frac{1}{8}$ full. What fraction of the petrol tank was used during the journey? A) $\frac{1}{5}$ B) $\frac{19}{24}$ C) $\frac{5}{24}$ D) $\frac{13}{24}$
35	The cost price of an electric guitar is €457. A music shop sells it at a profit of 35%. Calculate the selling price of the guitar. A) €616.95      B) €297.05      C) €492      D) €159.95

36	The time on a 24-hour clock shows 05:50. The time on the clock is showing: A) Five minutes to six in the morning B) Ten minutes to six in the afternoon C) Half past five in the morning D) Ten minutes to six in the morning
37	This L-shape is made up of two rectangles. Find the total area of the L-shape. A) 35.2 cm <sup>2</sup> B) 29.9 cm <sup>2</sup> C) 24.1 cm <sup>2</sup> D) 51.9 cm <sup>2</sup>
	
38	Find the value of the angle marked $x$ . A) 58°      B) 60°      C) 64°      D) 61°
	
39	A printer charges $x$ euro for designing a poster and $y$ euro for printing 100 copies of it. Find the total cost $C$ , in euro, of designing a poster and printing 200 copies of it. A) $C = x + y$ B) $C = x + 200y$ C) $C = x + 2y$ D) $C = 2(x + y)$
40	Find the value of $5a + 2b - ab$ given that $a = 3$ and $b = 2$ . A) 5      B) 13      C) 17      D) 10

20 x 2 marks = 40 marks