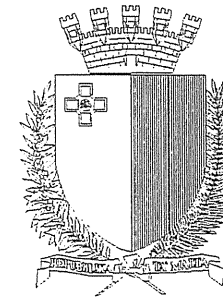


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**EXAMINATION FOR THE ENLISTMENT
OF SOLDIERS IN THE ARMED FORCES OF
MALTA**

February 2019

MATHEMATICS

TIME: 1 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.

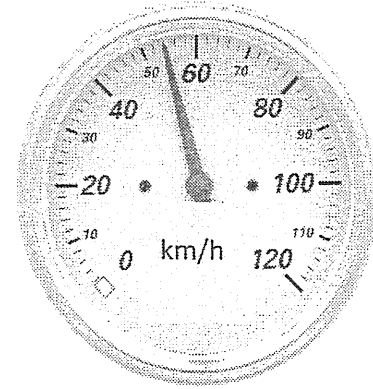
e.g. If answer C is selected, fill in the appropriate circle as shown below.

| | | | | |
|-----|-------------------------|-------------------------|------------------------------------|-------------------------|
| 50. | <input type="radio"/> A | <input type="radio"/> B | <input checked="" type="radio"/> C | <input type="radio"/> D |
|-----|-------------------------|-------------------------|------------------------------------|-------------------------|

- Each question carries two (2) marks.
- Diagrams are NOT drawn to scale.
- The use of calculators is allowed.

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46 What is the speed shown on this speedometer.



- A) 52 km/h B) 54 km/h C) 45 km/h D) 51 km/h

47 Which of the following are in ascending order?

- A) 0.2 , 0.021 , 0.02 , 0.012
 B) 0.02 , 0.012 , 0.2 , 0.021
 C) 0.021 , 0.02 , 0.012 , 0.2
 D) 0.012 , 0.02 , 0.021 , 0.2

48 The total surface area of a cube is 384 cm². What is the length of an edge of the cube?

- A) 19.5 B) 64 C) 8 D) 12

49 Which of the following shapes has rotational symmetry of order 2?

- A) parallelogram B) scalene triangle C) square D) kite

50 Martin has €7 in his pocket. He owed Roger and Chris €3 each while Sam owed Martin €5. Which one of the following represents the amount of money that Martin actually has.

- A) $7 - 2 \times 3 - 5$ B) $7 + 5 - 2 \times 3$ C) $7 + 3 \times 2 + 5$ D) $7 + 2 \times 3 - 5$

10 x 2 marks = **20 marks**

TOTAL: 100 MARKS

Section A

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

1 The difference between 591 and 385 is:

- A) 976 B) 206 C) 215 D) 876

2 Change 8500 metres into kilometres.

- A) 850 km B) 0.85 km C) 8.5 km D) 85 km

3 Simplify the ratio 42 : 126

- A) 2 : 5 B) 6 : 12 C) 22 : 63 D) 1 : 3

4 21.863 rounded to 1 decimal place is

- A) 21.8 B) 21.86 C) 21.9 D) 22

5 Work out: $\frac{2}{7} + \frac{3}{7}$

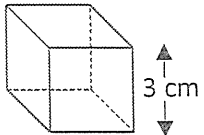
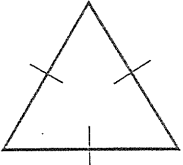

- A) $\frac{5}{14}$ B) $\frac{6}{49}$ C) $\frac{5}{7}$ D) $\frac{1}{7}$

6 Which one of the following sets of numbers is written in order, largest first?

- A) 31.87 , 31.83 , 38.75 , 37.52
 B) 29.78, 27.98 , 27.05, 25.86
 C) 67.12, 60.71 , 61.07, 60.27
 D) 13.98, 19.38 , 38.19 , 91.83

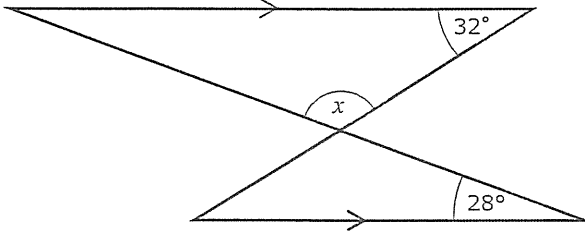
7 Which one of the following sets of numbers is made up of prime numbers only?

- A) 21, 23, 27, 29
 B) 19, 23, 31, 37
 C) 11, 13, 15, 19
 D) 13, 15, 19, 21

| | | | |
|----------------------|--|---------------------|----------------------|
| 8 | Simplify $3x + y - 2x$ | | |
| A) $x + y$ | B) $5x + y$ | C) $6xy$ | D) $5xy$ |
| 9 | Express 55% as a fraction in its simplest form. | | |
| A) $\frac{11}{25}$ | B) $\frac{11}{50}$ | C) $\frac{9}{20}$ | D) $\frac{11}{20}$ |
| 10 | Work out 20% of €135. | | |
| A) €27 | B) €20 | C) €35 | D) €55 |
| 11 | Calculate the surface area of the cube. | | |
| |  | | |
| A) 24 cm^2 | B) 36 cm^2 | C) 9 cm^2 | D) 54 cm^2 |
| 12 | This triangle is | | |
| |  | | |
| A) isosceles | B) equilateral | C) right angled | D) scalene |
| 13 | A fair dice is tossed. The probability of getting a number greater than 4 is | | |
| |  | | |
| A) $\frac{1}{4}$ | B) $\frac{1}{12}$ | C) $\frac{1}{3}$ | D) $\frac{1}{6}$ |
| 14 | Work out $11 + 13 \times 3$ | | |
| A) 72 | B) 27 | C) 46 | D) 50 |
| 15 | The following are the marks of eight students in a maths test. 62, 19, 50, 38, 71, 28, 50, 74 What is the range? | | |
| A) 50 | B) 49 | C) 55 | D) 51 |

Section C

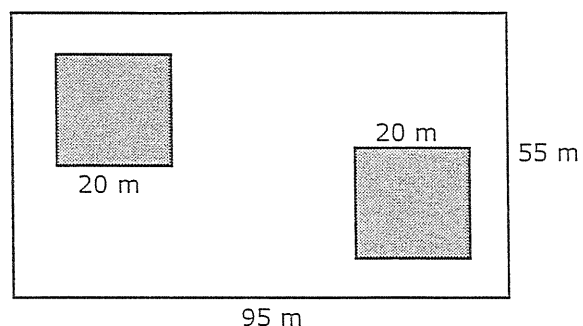
This Section contains ten (10) questions (from 41 to 50).
Answer ALL questions.

| | | | |
|------------------|--|------------------|-------------------|
| 41 | What number is a common factor of 24 and 60 and also a common multiple of 2 and 3? | | |
| A) 4 | B) 8 | C) 12 | D) 18 |
| 42 | Evaluate $\sqrt{(6.4 + 9.6)} - 2^3$ | | |
| A) 4.13 | B) 9 | C) -4 | D) -2 |
| 43 |  | | |
| | What is the size of the angle marked x ? | | |
| A) 100° | B) 120° | C) 60° | D) 180° |
| 44 | Rounded to the nearest whole number, $\frac{3}{4} + \frac{8}{9} + \frac{2}{3}$ is: | | |
| A) 2 | B) 3 | C) 1 | D) 5 |
| 45 | Melanie had €40. She spent €16 and gave half of the rest to her sister. What fraction of her original amount she had left? | | |
| A) $\frac{2}{5}$ | B) $\frac{3}{10}$ | C) $\frac{1}{5}$ | D) $\frac{1}{10}$ |

36 Which one of the following is not equal to 25?

- A) 0.25 of 100
- B) $\frac{2}{8}$ of 100
- C) $\frac{1}{2}$ of 50
- D) 0.4 of 100

37 A rectangular yard, measures 95 m by 55 m. Two square garden spaces of side 20 m are to be covered with flowers. The rest of the yard is to be tiled. Calculate the area of yard that will be tiled.



- A) 4000 m²
- B) 4425 m²
- C) 5625 m²
- D) 4825 m²

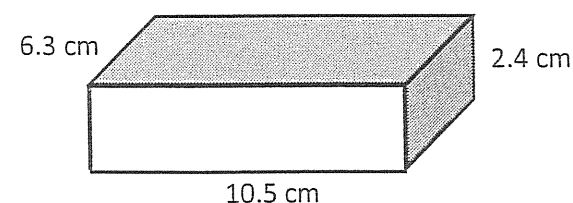
38 Express 400 ml as a percentage of $2\frac{1}{2}$ litres.

- A) 9.6%
- B) 10%
- C) 16%
- D) 6.25%

39 240 people were asked about their favourite program and the information collected was represented on a pie chart. 64 people selected 'Cinema Nights'. Calculate the size of the angle that represents this programme.

- A) 64°
- B) 230°
- C) 43°
- D) 96°

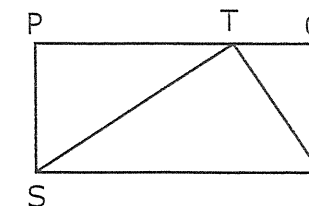
40 Calculate the total area of the two shaded faces of the given cuboid.



- A) 158.76 cm²
- B) 91.35 cm²
- C) 81.27 cm²
- D) 40.32 cm²

20 x 2 marks = 40 marks

16 The rectangle PQRS has an area of 84 cm². Find the **area of triangle RST**.



- A) 12 cm²
- B) 42 cm²
- C) 21 cm²
- D) 48 cm²

17 The interior angles of a triangle add up to

- A) 180°
- B) 360°
- C) 90°
- D) 60°

18 Solve $6x = 48$

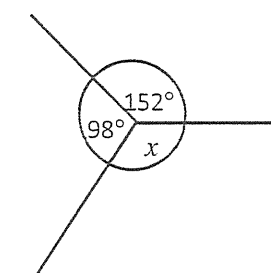
- A) 8
- B) 7
- C) 6
- D) 4

19 The LCM of 12 and 15 is

- A) 180
- B) 60
- C) 15
- D) 12

20 The value of angle x is

- A) 180°
- B) 250°
- C) 110°
- D) 234°

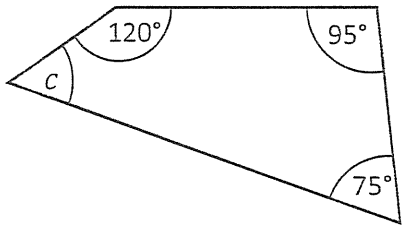


20 x 2 marks = 40 marks

Section B

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

| | |
|----|--|
| 21 | Find the value of $28 - (3 - 5) - (14 - 4)$. |
| | A) 2 B) 12 C) 20 D) 16 |
| 22 | How many minutes are there between 3:52 pm and 4:04 pm? |
| | A) 18 B) 12 C) 24 D) 8 |
| 23 | Express 396 as a product of prime factors. |
| | A) $2 \times 3^2 \times 11$ B) $2^2 \times 3 \times 11$ C) $2^2 \times 3^2 \times 11$ D) $2 \times 3 \times 11$ |
| 24 | Which of the following fractions are equivalent to each other? |
| | $\frac{7}{12}, \frac{2}{3}, \frac{6}{12}, \frac{4}{9}, \frac{14}{24}$ |
| | A) $\frac{6}{12}$ and $\frac{4}{9}$ B) $\frac{2}{3}$ and $\frac{14}{24}$ C) $\frac{7}{12}$ and $\frac{14}{24}$ D) $\frac{2}{3}$ and $\frac{4}{9}$ |
| 25 | The incomes of six people are €860, €900, €920, €950, €950 and €1000. Calculate the mean income. |
| | A) €950 B) €930 C) €935 D) €900 |
| 26 | The probability that I catch the 7 o'clock bus is $\frac{2}{5}$. What is the probability that I do not catch this bus? |
| | A) $\frac{1}{5}$ B) 3 C) 1 D) $\frac{3}{5}$ |
| 27 | 175 g of cereal cost €3.05. Calculate the cost of 350 g of cereal. |
| | A) €6.10 B) €1.53 C) €6.55 D) €5.25 |

| | |
|----|--|
| 28 | Work out: $\frac{5}{6} + \frac{5}{24}$ |
| | A) $\frac{1}{3}$ B) $1\frac{1}{24}$ C) $\frac{20}{24}$ D) $1\frac{1}{12}$ |
| 29 | Find the missing terms of the following number sequence: 17.25, 17.60, 17.95, _____, _____, 19.00 |
| | A) 18.30, 18.65 B) 18.20, 18.25 C) 18.40, 18.85 D) 18.40, 18.75 |
| 30 | Calculate the size of angle c . |
| |  |
| | A) 60° B) 85° C) 15° D) 70° |
| 31 | Increase 320 m by 20%. |
| | A) 340 m B) 256 m C) 322 m D) 384 m |
| 32 | The scale of a building plan is given by 1 cm to 50 cm. The length of a bedroom on plan is 9.2 cm. What is the actual length of the bedroom? |
| | A) 460 cm B) 620 cm C) 430 cm D) 480 cm |
| 33 | A camera costs 534 US Dollars. Taking €1 = 1.10 US Dollars, calculate the cost of the camera in euro. |
| | A) €485.45 B) €587.40 C) €528.66 D) €473.30 |
| 34 | Which number is closest to the value of 1? |
| | A) 1.1 B) 0.988 C) 1.009 D) 0.99 |
| 35 | If $S = a(4h + a)$, find the value of S when $a = 6$ and $h = 2$. |
| | A) 84 B) 72 C) 24 D) 14 |