Instructions to Candidates

- Answer all questions.
- This paper carries a total of 25 marks.
- Calculators and protractors are NOT allowed.
1. a) Which is greater 0.5 or 0.25? _________

b) The value of the digit 8 in \( 2.85 \) as a fraction is _______.

c) \( €4.50 \times 10 = \) _________

d) \((-3) + (-4) = \) _________

e) 234.5 correct to the nearest whole number is _________

(5 marks)

2. Underline the correct answer.

a) This angle is about:

\[ 130^\circ \quad 90^\circ \quad 45^\circ \quad 170^\circ \]

b) The best estimate of the capacity of a cup is:

\[ 1 \text{ litre} \quad 5 \text{ litres} \quad 50 \text{ ml} \quad 250 \text{ ml} \]

(2 marks)

3. Choose:

a) The largest prime number between 1 and 10. _________

b) The odd, square number between 60 and 100. _________

(2 marks)
4. Martin, Helen and Joan each buy a pizza.

Martin eats $\frac{1}{4}$ of it, Helen eats $\frac{1}{8}$ of hers and Joan eats $\frac{1}{3}$ of her pizza.

If the 3 pizza are of the same size, who eats:

a) the largest amount?  

b) the smallest amount?

Ans a): ____________

Ans b): ____________

(2 marks)

5. a) Write as a decimal.

Ans: ____________

b) Find the difference between $25\%$ of €4 and $\frac{1}{2}$ of €2.02.

Ans: ____________

(4 marks)

6. Match each name with one diagram. (Note: You have extra diagrams.)

- Parallel lines
- Right angle
- Acute angle
- Reflex angle
- Isosceles Triangle

7. Samantha first walks $\frac{3}{10}$ of the track and then runs $\frac{1}{10}$ of it.

(5 marks)
a) What fraction of the whole track does she cover in all?

Ans: ______________

b) What distance does she cover if the track is 400 m long?

Ans: ______________ m

c) She repeats the walk and run action once more. Has she now covered more than half the distance of the track? Explain.

(5 marks)

END OF NON CALCULATOR PAPER
1. This is a series of shapes in a pattern.

\[ \text{1st shape} \quad \text{2nd shape} \quad \text{3rd shape} \quad \text{4th shape} \quad \text{5th shape} \]

a) Draw the 5\textsuperscript{th} shape in the pattern.

b) Complete the table

<table>
<thead>
<tr>
<th>Shape Number (N)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of triangles (T)</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

c) How many triangles are there in the 100\textsuperscript{th} shape?

Ans: __________ triangles

d) Taking shape number as ‘N’ and number of triangles as ‘T’, write the equation for this pattern:

\[ T = \underline{} \] (6 marks)
2. a) Three friends plan to go on a holiday to Paris. They decide to share one room. The three flights cost €704, the hotel room costs €865 and other expenses amount to €900.

Work out: (i) the total cost for all three for the whole holiday.

Ans: €______

(ii) the cost for each one of the friends per day if all expenses are shared equally and they stay for 10 days in Paris.

Ans: €______

b) They leave Malta early on the second Monday of July. What is the day and date of their arrival back in Malta?

Ans: day:__________ Ans: date:_______________

(5 marks)

3. A school bus is 13.5 m long.

A model is worked on a scale of \( \frac{1}{100} \).

Work out the length of the model.

Ans: ________________

(1 mark)
4. a) Fill in to show the correct time for each clock.

(i) ______ minutes past ______
(ii) a quarter to ______
(iii) 18: __

b) Mike leaves home at 9:35. He arrives at Valletta half an hour later. At what time does he arrive?

Ans: __________

(6 marks)

5. a) Which of these is the net of a closed cube?

Ans: __________

b) (i) Fill in the 2 spaces in the table:

<table>
<thead>
<tr>
<th>Shape</th>
<th>No. of vertices</th>
<th>No. of edges</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(ii) Which solid above is a cuboid?

Ans: __________
c) The diagram shows a cube of side 4 cm.

(i) Work out the area of one face.

Ans: ______ cm²

(ii) Find the volume of this shape. Each cube is 1 cubic cm.

Ans: ______ cm³

6. a) Calculate the angles marked with a letter. *(Do not measure as diagrams are not drawn to scale.)*

Ans: p = ______º

b) 

Ans: e = ______º

c) 

Ans: f = ______º

Ans: g = ______º

d) 

Ans: h = ______º
7.

a) (i) Complete the coordinates of the points

P = (1,   ), Q = (   , 2 ) and R = (   ,   ).

(ii) Plot point S so that PQRS is a kite. Join PQRS.

(iii) Underline the correct words:

Kite PQRS is a regular/an irregular shape.

b) The following 4 points are in a straight line on the grid:

(−4, 4) (−4, 3) (−4, 2) (−4, 1)

(i) Write down the coordinates of another point on this line.

Ans: (   ,   )

(ii) Underline the correct equation of this line:

\[ y = -4 \quad y = 4 \quad x = -4 \quad x = 4 \quad y = x - 1 \]
8. a) Refer to this balance to answer the questions below.

![Balance Diagram]

(i) Complete the equation. \( \underline{\text{_____}} = k \)

(ii) How many \( \bigcirc \) make one \( m \)? Write this as an equation. \( \underline{\text{_____}} = m \)

b) (i) Find the value of \( p \) in: \( p - 15 = 21 \)

\[ \text{Ans: } p = \underline{\text{____}} \]

(ii) Find the value of \( w \) in: \( 2w + 4 = 14 \)

\[ \text{Ans: } w = \underline{\text{____}} \]

9. a) Evaluate:

(i) \( 8 \times (43 - 3) \) \hspace{2cm} (ii) \( \sqrt{121} \)

\[ \text{Ans (i): } \underline{\text{______}} \hspace{2cm} \text{Ans (ii): } \underline{\text{____}} \]

b) Find the value of: \( 2x + y \) when \( x = 10 \) and \( y = 4 \).

\[ \text{Ans: } \underline{\text{____}} \]

c) Simplify: \( 5(p + q) - 2q \)

\[ \text{Ans: } \underline{\text{______}} \]

(6 marks)
10. a) The list shows the score obtained when Martha throws an ordinary six sided dice nine times.

<table>
<thead>
<tr>
<th></th>
<th>6</th>
<th>1</th>
<th>4</th>
<th>5</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Calculate (i) the **mean** score

 Ans: __________

(ii) the **median** score.

 Ans: __________

b) Ruth asked the students in her class which was their favourite colour. She recorded this in the table below:

<table>
<thead>
<tr>
<th>Colour</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>yellow</td>
<td>5</td>
</tr>
<tr>
<td>red</td>
<td>4</td>
</tr>
<tr>
<td>pink</td>
<td>3</td>
</tr>
<tr>
<td>violet</td>
<td>2</td>
</tr>
<tr>
<td>black</td>
<td>1</td>
</tr>
<tr>
<td>orange</td>
<td>1</td>
</tr>
<tr>
<td>pink</td>
<td>1</td>
</tr>
</tbody>
</table>

Which was the **modal** colour?

 Ans: __________ modal colour

c) **Complete** the bar chart to represent the above information.

![Bar Chart](Image)

**COLOURS**

![COLOURS](Image)

(d) What is the **probability** that the favourite colour was

 (i) yellow? _______  (ii) brown? _______

(10 marks)
11. Mario enters the following commands in LOGO.

**PD FD 100 BK 50 RT 90 FD 50**

Draw the shape he sees on the screen.

(Turtle is shown in start position.)

(3 marks)

12. a) Draw triangle ABC accurately.

![](sketch)

b) Measure the remaining sides and angles.
   (i) Side AC = ____________ to the nearest mm
   (ii) Side BC = ____________ to the nearest mm
   (iii) Angle C = ______ to the nearest degree.

c) Work out the perimeter of triangle ABC.

**Ans:** __________ cm

d) What kind of triangle is the one above? **Explain.**

**Ans:** ______________________________________________________

____________________________________________________

(10 marks)