Instructions to Candidates

- Answer ALL questions.
- This paper carries a total of 20 marks.
- Calculators and protractors are not allowed.
1. a) Write in **ascending order** (smallest first):

\[
\begin{array}{llll}
15.3 & 13.5 & 0.153 & 1.53 \\
\hline
\end{array}
\]

b) Write in **figures**:

**Twenty five thousand, seven hundred and forty three**

\[
\quad
\]

c) Round your answer in b) to the **nearest hundred**.

\[
\quad
\]

(4 marks)

2. Write the **next number**:

a) 51, 45, 39, 33, _______

b) 1, 4, 9, 16, _______

(2 marks)

3. \[
\begin{array}{c}
\text{Fill in:} \\
w = \underline{\phantom{00000000}} ^\circ
\end{array}
\]

(1 mark)
4. **Reflect** the triangle in the **y-axis**.

![Triangle graph](image)

(1 mark)

5. The following are **temperatures** in degree Celsius (°C).

   20, 22, 23, 21, 18, 19, 17

Work out the **range** of the temperatures.

Range = __________°C

(1 mark)

6. During a sale, a shop gives a **75% discount** on all items.

   a) Write 75% as a **fraction** in its **lowest terms**.

   \[ 75\% = \frac{\square}{\square} = \frac{\square}{\square} \]

   b) Work out the **discount** on a shirt costing €20.

   € __________

(3 marks)
7. Brenda buys 8 pens each costing 55 cent.
   a) How much do the pens cost altogether?

   € ________________

   b) She pays with a €5 note.
      How much change does she get?

Change = € ________________

(2 marks)

8. a) Expand

   5(3x + 4) = ___________________________

   b) For the given triangle, write a formula for the sum of its interior angles.

   _________________________________ = 180°

   c) Work out the value of x.

   x = ________________

   (3 marks)
9. The **area** of this rectangle is 21 cm². Work out:
   a) the **width** of the rectangle
   
   ![Rectangle with one side labeled 7 cm]

   Width = ___________ cm

   b) the **perimeter** of the rectangle.

   Perimeter = ___________ cm

   (2 marks)

10. Maria throws a 6 sided dice.

    The **probability** that Maria gets an **odd number** is:

    A) 0     B) 1     C) \( \frac{1}{2} \)     D) \( \frac{1}{4} \)

    __________________________    (1 mark)

**END OF PAPER**
Name: ________________________________          Class: __________

Instructions to Candidates

▪ Answer ALL questions.
▪ This paper carries a total of 80 marks.
▪ Calculators are allowed. Show all necessary working.

1. a) Give a rough estimate of \( \frac{32.1 + 19.5}{5.3} \)

   \[ \frac{32.1 + 19.5}{5.3} \]

   \[ \frac{32.1 + 19.5}{5.3} = \] _______________

   b) i) Use your calculator to work out \( \frac{32.1 + 19.5}{5.3} \) = _______________

   ii) Give the answer correct to 2 decimal places. _______________

   iii) Give the answer correct to the nearest whole number. _______________

   (5 marks)
2. The **number line** below shows the correct position of the fractions $\frac{4}{10}$ and $\frac{7}{10}$.

![Number Line](image)

a) Write down a fraction that is **equal** to $\frac{7}{10}$.

b) Reduce $\frac{4}{10}$ as a fraction in its **lowest terms**.

c) Find a fraction **between** $\frac{4}{10}$ and $\frac{7}{10}$.

d) Mark $\frac{4}{5}$ with an **arrow** on the **number line** given.

(4 marks)

3. A restaurant owner uses the following **square** tables to seat people.

![Tables](image)

a) **Fill in** the table below.

<table>
<thead>
<tr>
<th>Seating</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>People</td>
<td>4</td>
<td>6</td>
<td></td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

b) Each time the owner adds a table, he can seat ________ more **people**.

c) How many **tables** would be needed to seat 16 people?

(4 marks)
4. The graph changes Pound Sterling (£) to Euro (€).

   ![Graph](image)

   a) Use the graph to complete the following:

   i) £1 is equivalent to €__________

   ii) €3 is equivalent to £__________

   b) Alex changes £200 to Euro (€). **Work out** his amount in Euro (€).

   €____________ (4 marks)

5. Water flows from a pipe at a rate of **30 litres in 10 minutes**.

   a) Fill in:

   i) 30 litres = _______________ ml

   ii) 10 minutes = _____________ seconds

   b) Work out the amount of water in ml that flows out per second.

   ____________ ml (4 marks)
6. Tourists can take a bus from Malta International Airport (MIA) to the Gozo ferry in Cirkewwa. The timetable below shows times when buses leave the airport.

<table>
<thead>
<tr>
<th>Trip Number &amp; Time</th>
<th>LEAVING FROM MIA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Monday</td>
</tr>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>15:00</td>
</tr>
<tr>
<td>4</td>
<td>18:00</td>
</tr>
<tr>
<td>5</td>
<td>19:30</td>
</tr>
</tbody>
</table>

Use the timetable to fill in the following:

a) **Trip 1** is only available on a __________________ at _______________.

b) Trip numbers _____ and _____ run everyday of the week.

c) On weekends, the earliest trip is at ________________.

d) On a Tuesday, **trip 3** leaves _______ minutes after trip 2.

e) Trip 9 leaves 4 hours 25 minutes after trip 6 on a _______________.

(7 marks)

7. **Complete** the following number machines:

a) ![Image of number machine with 7 input, ×5, +4, output]

b) ![Image of number machine with 24 input, −4, ÷2, output]

c) ![Image of number machine with input, ×3, −10, output]

(6 marks)

Name: ________________________________  Class: ____________
8. Figure A shows a tent.
   The tent’s entrance is in the form of a triangle (figure B).

   ![Figure A](image)
   ![Figure B](image)

   a) Use figure B to work out the area of the entrance.

   Area = ________________ m²

   b) Given that the tent is 5 m long, work out its volume.
      Use the formula $\text{Volume} = \text{area} \times \text{length}$.

   Volume = ________________ m³

9. a) Solve the following equations:
   i) $4x = 22$

      $x = ______$

   ii) $x + 5 = 6$

      $x = ______$

   iii) $\frac{x}{2} = 10$

      $x = ______$

   b) The cost of 2 soft drinks and a toast is €2.45.
      A soft drink costs 75 cent. Work out:
      i) The cost of the 2 soft drinks

      ___________
ii) The cost of the toast

10. The figure shows a regular pentagon.
   a) Work out the sum of the interior angles (S) of the pentagon. Use the formula \( S = 180(n-2) \).

   \[ \_\_\_\_\_\_\_\_\_\_\_° \]

   b) Find the size of angle y.

   \[ y = \_\_\_\_\_\_\_\_\_\_° \]

   c) Underline the correct one.

   The sum of the exterior angles of the pentagon is (180°, 360°, 540°).

   d) Hence work out the size of one exterior angle.

   \[ \text{Exterior angle} = \_\_\_\_\_\_\_\_\_\_° \]

   e) Fill in the LOGO commands below to draw a regular pentagon.

   \[ \text{PD} \]
   \[ \text{REPEAT} \_\_\_\_ \text{[FD 100 RT \_\_\_] } \]

11. The following are nets of different shapes.

   \[ \text{A} \quad \text{B} \quad \text{C} \quad \text{D} \]
a) Fill in:

i) Figure _______ shows the net of a cube.

ii) Figure B is the net of a ________________.

iii) The net of a pentagonal prism is figure _______.

iv) Figure _______ is the net of a pyramid.

b) Complete the table below:

<table>
<thead>
<tr>
<th>Shape</th>
<th>Faces</th>
<th>Edges</th>
<th>Vertices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cube</td>
<td>6</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Cylinder</td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Pyramid</td>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Pentagonal Prism</td>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(8 marks)

12. Mary did a survey on TV programmes. The responses of 12 of her classmates are given below.

<table>
<thead>
<tr>
<th>Film</th>
<th>News</th>
<th>Film</th>
<th>Documentary</th>
<th>Sports</th>
<th>Quiz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Film</td>
<td>Film</td>
<td>Quiz</td>
<td>Documentary</td>
<td>News</td>
<td>News</td>
</tr>
</tbody>
</table>
b) Fill in the table to calculate the angle represented by each programme. The first one is done for you.

<table>
<thead>
<tr>
<th>TV PROGRAMME</th>
<th>TALLY</th>
<th>FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Film</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quiz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>News</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Documentary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sports</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[
(360° \div 12) \times 4 = 120°
\]

<table>
<thead>
<tr>
<th>TV Programme</th>
<th>Working</th>
<th>Angle in Pie Chart</th>
</tr>
</thead>
<tbody>
<tr>
<td>Film</td>
<td>((360° \div 12) \times 4)</td>
<td>120°</td>
</tr>
<tr>
<td>Quiz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>News</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Documentary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sports</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


c) The most favourite TV programme is ______________________________.

d) Now draw the pie chart in the circle.

e) In the school Mary attends there are 400 students. How many students would prefer to watch the news?
13. Fill in the following:

a) Shape A is translated to C by ____ squares to the left and 7 squares _____.

b) Shape ____ is an enlargement of A by scale factor _____.

c) Shape ____ is a rotation of A by 90° clockwise.

END OF PAPER