READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name in the spaces at the top of this page.
Write in dark blue or black pen.
DO NOT WRITE IN ANY BARCODES.

Answer all questions.
The number of marks is given in brackets [ ] at the end of each question or part question.
You should show all your working in the booklet.
The total number of marks for this paper is 40.

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This document consists of 16 printed pages.
1 Complete the table.

The first row has been done for you.

<table>
<thead>
<tr>
<th>In words</th>
<th>In figures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Six hundred and forty</td>
<td>640</td>
</tr>
<tr>
<td>Seven thousand, nine hundred and six</td>
<td>2079</td>
</tr>
</tbody>
</table>

2 Use either < or > to make each statement correct.

112  □  102

1121 □  1211

2111 □  1112

3 Draw the reflection of the shape in the mirror line.

[Diagram of a shape on a grid with a mirror line]
George counts the number of boats sailing into a harbour on 5 days.

<table>
<thead>
<tr>
<th>Day</th>
<th>Boats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td><img src="Image" alt="Boats" /></td>
</tr>
<tr>
<td>Tuesday</td>
<td><img src="Image" alt="Boats" /></td>
</tr>
<tr>
<td>Wednesday</td>
<td><img src="Image" alt="Boats" /></td>
</tr>
<tr>
<td>Thursday</td>
<td><img src="Image" alt="Boats" /></td>
</tr>
<tr>
<td>Friday</td>
<td><img src="Image" alt="Boats" /></td>
</tr>
</tbody>
</table>

Key

- ![Boats](Image) represents 10 boats
- ![Boats](Image) represents 5 boats

How many boats does George count sailing into the harbour altogether?

[1] boats
5  (a) Each diagram shows a pair of numbers, one in a circle and one in a square.

![Diagram with numbers](image)

Describe the connection between the pairs of numbers.

(b) The numbers in this diagram are connected in the same way. Fill in the missing number.

![Diagram with number](image)

6  Draw a ring around the number which has the digit 5 in the thousands column.

65 302  51 302  69 502  48 352
7 Marcel sells ice-creams.
One day he keeps a tally of his sales.

<table>
<thead>
<tr>
<th>Flavour</th>
<th>Tally</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chocolate</td>
<td>♂ ♂ ♂ ♂ ♂</td>
<td>24</td>
</tr>
<tr>
<td>Strawberry</td>
<td>♂ ♂ ♂ ♂</td>
<td>13</td>
</tr>
<tr>
<td>Mint</td>
<td>♂ ♂ ♂ ♂ ♂</td>
<td>13</td>
</tr>
<tr>
<td>Toffee</td>
<td>♂ ♂ ♂ ♂ ♂</td>
<td>13</td>
</tr>
</tbody>
</table>

(a) Complete the frequency column.

(b) He puts all of this information into a bar chart. Draw the bar for mint.

8 Write the missing number.

\[
\frac{1}{3} + \square = 1
\]
9 Tina has these three cards.

4 5 6

Use each card once to make the largest possible number that will divide by 5 exactly.

[ ]

10 Put a tick (✓) next to the calculation that is the same as $\frac{1}{4}$ of 12

12 × 4

12 – 4

12 + $\frac{1}{4}$

12 ÷ 4

12 – $\frac{1}{4}$
11 The difference between the two numbers in boxes shown on this line is 10 Write the missing number in the box.

\[ -10 \quad 0 \quad 10 \]

\[ \boxed{} \quad 7 \]

[1]

12 (a) Round 8375 to the nearest thousand.

...................................................................................................................... [1]

(b) Round 3.66 to the nearest tenth.

...................................................................................................................... [1]

13 Here are four digit cards.

\[
\begin{array}{c}
0 \\
1 \\
3 \\
5 \\
\end{array}
\]

Use these cards to complete this calculation. Each card must only be used once.

\[
\boxed{} \times \boxed{} = 450
\]

[1]
14 (a) Clara is investigating the following statement:

Some quadrilaterals have exactly two lines of symmetry.

On the grid below, draw an example of a shape that shows this statement to be true.

(b) Adam is investigating this statement

Some triangles contain exactly two right angles.

Explain why this statement is false.
15 Complete the table of equivalent fractions, decimals and percentages.

<table>
<thead>
<tr>
<th>Fraction</th>
<th>Decimal</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \frac{1}{2} )</td>
<td>0.5</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>( \frac{3}{4} )</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16 (a) Tick (✓) to show whether each of these calculations is true or false.

<table>
<thead>
<tr>
<th></th>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>( 27 \div 5 = 5 \text{ remainder } 2 )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>( 47 \div 7 = 5 \frac{6}{7} )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>( 37 \div 6 = 6 \frac{1}{6} )</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(b) Complete this calculation.

\[ \boxed{} + 7 = 4 \frac{2}{7} \]
17 A model of a car is one tenth of the size of the real car. The model measures 42 cm long.

What is the length of the real car? Give your answer in centimetres.

\[
\text{cm} \quad [1]
\]

18 Here are 2 triangles on a grid.

(a) What are the co-ordinates of point C?

\[
(\text{...........}, \text{...........}) \quad [1]
\]

(b) Describe the translation that moves triangle A to triangle B.
19 Use one of the symbols to complete each number sentences.

\[ \begin{array}{ccc}
5 & \square & 3 \\
8 & \square & 8 \\
6 & \square & 3 \\
8 & \square & 4 \\
3 & \square & 1 \\
8 & \square & 2 \\
\end{array} \]

20 The distance between two towns is 50 miles.

Tick (✓) the best approximation of 50 miles in kilometres.

- 8 kilometres
- 30 kilometres
- 80 kilometres
- 200 kilometres
- 500 kilometres

[1]
Here is a net of a 3D shape.

(a) What 3D shape does it make? [1]

(b) Alex thinks of a 3D shape.

My shape has 6 vertices, 5 faces and 9 edges.

Write down the name of the 3D shape Alex is thinking of. [1]
22 (a) Write 2.456 kilometres in metres.

.............................................. m [1]

(b) Write 256 grams in kilograms.

.............................................. kg [1]

23 (a) Layla is writing the prime numbers in order.

Write in the prime numbers she has missed.

2, 3, 5, 7, ..., 13, ..., 19, 23 [1]

(b) Write the next two numbers in the sequence.

1, 4, 9, 16, 25, ..., ..., [1]
Here are two bags.

Bag A has 1 black bead and 3 white beads.
Bag B has 2 white beads and 6 black beads.

Isaac takes a bead without looking from each bag in turn.

(a) What is the probability of Isaac taking a black bead from bag A?
Draw a ring around one answer.

- certain
- impossible
- even
- likely
- unlikely

(b) What is the probability of Isaac taking a black bead from bag B?
Mark your answer with an arrow (↓) on the probability line.

0 ↓ 1
impossible unlikely even likely certain

[1]
Here is part of a train timetable.

Both trains take the same time to travel between stations.

<table>
<thead>
<tr>
<th></th>
<th>Train A</th>
<th>Train B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Longfield</td>
<td>09 39</td>
<td>12 31</td>
</tr>
<tr>
<td>Stoneton</td>
<td>09 56</td>
<td>12 48</td>
</tr>
<tr>
<td>Middleton</td>
<td>10 20</td>
<td></td>
</tr>
<tr>
<td>Churchville</td>
<td>10 28</td>
<td>13 20</td>
</tr>
<tr>
<td>Postley</td>
<td>10 33</td>
<td>13 25</td>
</tr>
</tbody>
</table>

(a) Fill in the missing time for Train B. 

(b) What is the journey time between Longfield and Churchville?

................................................................. minutes

26 The price of a coat is $45

In a sale the price is reduced by 15%.

Work out the price of the coat in the sale.

$ .........................................................
27  Rotate the shape clockwise through an angle of 90° about vertex A.

28  Fill in the missing digits to make this addition correct.

\[
\begin{array}{cc}
2 & 6 \\
\hline
+ & 5 \quad 4 \\
\hline
\end{array}
\]

= \quad 1 \quad 7