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.
1 (a) Here is a list of numbers.

23  28  33  43  46  52  59

Draw a ring around two numbers with a total of 74 [1]

(b) Here is a list of the same numbers.

23  28  33  43  46  52  59

Draw a ring around two numbers with a difference of 9 [1]

2 Write the missing numbers in each box to complete each sequence.

(a) 13,   [ ] 19,   [ ] 25,  28 [1]

(b) 9,  7,   [ ] 3,   [ ]   [ ] [1]
3 Calculate the size of angle $a$.

$\angle 70^\circ$

Not drawn to scale

4 Complete the calculation.

$$\frac{4}{10} + \frac{\text{blank}}{\text{blank}} = 1$$

$[1]$
Here are four digit cards.

2 3 4 5

Anna chooses three of these cards to write three-digit numbers.

Write all the three-digit numbers that Anna could make between 350 and 450.

Match each calculation in a box to the correct answer. The first one has been done for you.

\[ \frac{1}{2} \text{ of } 56 = 22 \]

\[ \frac{1}{3} \text{ of } 78 = 26 \]

\[ \frac{1}{4} \text{ of } 92 = 23 \]

\[ \frac{1}{5} \text{ of } 125 = 27 \]
7 Put one tick (✓) in each row to complete the table.

<table>
<thead>
<tr>
<th></th>
<th>Greater than $\frac{1}{2}$</th>
<th>Less than $\frac{1}{2}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\frac{3}{4}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\frac{34}{100}$</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[2]

8 Put one of the digits 0, 1, 2 and 6 in each box to complete the calculation.

Each digit can only be used once.

```
[ ] [ ] × [ ] [ ] = 1260
```

[1]

9 Find the perimeter of this regular pentagon.

```
Not drawn to scale
```

8.5 cm

................................. cm [1]
10 Triangles $A$ and $B$ are drawn on a square grid.

(a) Triangle $A$ is translated 4 squares to the right and 1 square down. Draw the triangle in its new position. [1]

(b) Describe the translation which moves triangle $A$ from its original position to triangle $B$. [1]

11 Oranges are sold in bags of 6

A school needs 260 oranges. How many bags will they need?

.............................................. bags [1]
12 Imran starts with one and counts on in fives to give this number pattern.

\[1 \quad 6 \quad 11 \quad 16 \quad 21 \quad 26 \quad 31\]

The pattern continues in the same way.

Will he ever find a number in the five times table?

Yes [ ] No [ ]

Explain how you know.

[1]

13 Aysha is counting on in steps of 0.3

Write in the missing numbers.

0.8 [ ] 1.4 [ ]

[1]
14 Match each shape to the percentage that is shaded.

One has been done for you.

- 25%
- 60%
- 20%
- 30%
15 The graph shows Hakim's cycle journey between 1 pm and 5 pm.

(a) How far does he travel between 1 pm and 3 pm?

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

(b) What might he be doing between 3 pm and 4 pm?

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

16 Here are 4 calculations.

Use <, > or = to make each number sentence true.

57.25 \times 12.5 \□ 750

1000.5 - 249.8 \□ 750

452.75 + 297.25 \□ 750

600 \div 0.8 \□ 750

[2]
17 Draw a ring around each prime number.

7   9   10   11   15   17

[1]

18 Here are 6 digit cards.

1  2  3  4  5  6

Use 4 of the cards to complete this number sentence.

\[
\begin{array}{c}
\hline
\hline
\end{array}
\quad = \quad \begin{array}{c}
\hline
\hline
\end{array}
\]

[1]

19 Apples cost $1.60 for 500 g

What is the cost of 2 kg of apples?

$ \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots [1]
20 Here is a diagram of a cube.

(a) How many edges does the cube have?

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

(b) How many vertices does the cube have?

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

21 Here is a bus timetable.

<table>
<thead>
<tr>
<th></th>
<th>Atown</th>
<th>Beville</th>
<th>Cecity</th>
<th>Doham</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>07:45</td>
<td>08:05</td>
<td>08:38</td>
<td>09:13</td>
</tr>
<tr>
<td>Time</td>
<td>11:05</td>
<td>11:25</td>
<td>11:58</td>
<td>12:33</td>
</tr>
<tr>
<td>Time</td>
<td>14:45</td>
<td>15:05</td>
<td>15:38</td>
<td>16:13</td>
</tr>
</tbody>
</table>

(a) How long does the bus take to get from Beville to Doham?

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

(b) Tula gets on a bus at 14:45 and gets off 53 minutes later. Where does she get off the bus?

................................................. [1]
22 (a) Plot the points \(B(5, -3)\), \(C(3, 3)\) and \(D(-3, 3)\) on the grid.

(b) Join the points \(A, B, C, D\) to make a shape. What is the name of this quadrilateral?

23 Complete the calculations.

(a) \(5 + 2 \times 3 = \) 

(b) \(5 \times 6 + 4 \times 2 = \)
24 Fill in the missing numbers to make this subtraction correct.

\[
\begin{array}{c}
3 \boxed{} 3 \boxed{} 7 \\
- \boxed{} 8 \boxed{} 4 \\
\hline
\boxed{} 6 \boxed{} 9 \boxed{} 2
\end{array}
\]

25 Fatima has some pens.

She gives \(\frac{3}{10}\) of her pens to her brother.

She gives her brother 12 pens.

How many pens is she left with?

\[\text{........................................... pens} \quad [2]\]
(a) Which score is the mode?

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

(b) What percentage of the students scored less than 3 marks?

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