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.

Calculators are not allowed.

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.

For Examiner’s Use

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<td>16</td>
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<td>Total</td>
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</table>
1 Calculate

\[ 423 - 298 = \]

\[ \underline{\text{[1]}} \]

2 Fatima has 72 oranges.

Four oranges are needed to make a glass of freshly squeezed orange juice.

How many glasses of orange juice can she make?

\[ \underline{\text{[1]}} \]
3 (a) Shade $\frac{2}{5}$ of the shape.

(b) What fraction of the shape below is shaded?

................................. [1]
The Venn diagram shows information about the children in a Grade 6 class.

blue eyes

walk to school

1 5 6

2 6

3

boys

How many children in this class walk to school?

.................................................. children  [1]
5 Here is a number fact.

\[ 14 \times 37 = 518 \]

Use this fact to decide whether these calculations are true or false.

\[ 518 + 37 = 14 \quad \text{True} \quad \text{False} \]

\[ 37 + 518 = 14 \quad \text{True} \quad \text{False} \]

6 Write all the missing numbers in this multiplication grid.

\[
\begin{array}{c|c|c}
\times & 42 & 48 \\
\hline
49 & 54 & 63 \\
\hline
8 & 64 & 72 \\
\end{array}
\]
7 A box contains 30 chocolates.

How many chocolates are in 6 of these boxes?

[1] chocolates

8 Draw a line 68 mm long.
You must use a ruler.

[1]

9 Fatima is thinking of a number.
She says

Double my number is 14.4

What number is Fatima thinking of?

[1]
A, B and C are three vertices of a square.

What are the co-ordinates of the fourth vertex?

(........................ , ........................ ) [1]

Shade 5 more squares so that this shape has 2 lines of symmetry.

[1]
12 Write these fractions in their simplest form.

\[ \frac{6}{12} = \quad \] ..........................................................  

\[ \frac{12}{15} = \quad \] ..........................................................  

[1]

13 Write each number in its correct box to show its position on the number line.

9482 9842

[1]

14 Here are three mixed numbers.

\[ 5 \frac{1}{4} \quad 7 \frac{1}{2} \quad 3 \frac{3}{4} \]

Write each number in its correct box on the number line. You will not need all of the boxes.

[2]
15 Here is a $1 \text{ cm}^2$ grid.
Draw a rectangle with a perimeter of 12 cm.

16 What is the missing number?
17 A sequence starts at 300 and 40 is subtracted each time.


\[
300 \quad 260 \quad 220 \quad 180 \ldots
\]

The sequence continues in the same way.

What is the first number in the sequence which is less than zero?

18 Draw a ring around all the numbers that are factors of 42

\[
1 \quad 2 \quad 3 \quad 4 \quad 5 \quad 6 \quad 7
\]

19 Write the missing numbers in each box.

(a) \[0.4 + \underline{\phantom{0}} = 1\]

(b) \[3.3 + \underline{\phantom{0}} = 10\]

20 Draw a ring around all the numbers which are multiples of 25

\[
250 \quad 730 \quad 675 \quad 380 \quad 55
\]
21 (a) Calculate.

\[ 400 \times 70 \]

(b) Here is a number fact.

\[ 18 \times 5 \times 6 = 540 \]

Use this to work out

\[ 18 \times 5 \times 12 \]

22 Write the missing number.

\[
\begin{array}{c}
7.7 \\
\text{add 0.34}
\end{array}
\]

[1]
23 Here is a clock face showing a digital time.

\[
\begin{array}{c}
23:23 \\
\end{array}
\]

Draw a ring around the time that is the same as that shown on the clock.

11:23 am  3:23 pm  11:23 pm
2:23 pm   3:23 am

[1]

24 John records how many points each of his friends get on sports day. Here are the results.

\[15, \quad 12, \quad 8, \quad 16, \quad 11, \quad 12, \quad 9, \quad 12, \quad 15, \quad 14, \quad 4, \quad 9, \quad 12, \quad 18,\]

(a) What is the mode of the points scored?

........................................................................................................... 

[1]

(b) Complete the frequency table.

<table>
<thead>
<tr>
<th>Tally</th>
<th>Frequency</th>
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<tbody>
<tr>
<td>0 – 4</td>
<td></td>
</tr>
<tr>
<td>5 – 9</td>
<td></td>
</tr>
<tr>
<td>10 – 14</td>
<td></td>
</tr>
<tr>
<td>15 – 19</td>
<td></td>
</tr>
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</table>

[1]
25 At midday the temperature in Moscow was 7°C. At midnight it was −3°C.

By how many degrees did the temperature fall?

.................................................................................. °C [1]

26 (a) Draw a ring around the two fractions which are equivalent.

\[
\frac{3}{5} \quad \frac{6}{12} \quad \frac{10}{24} \quad \frac{15}{25} \quad \frac{7}{21}
\]

[1]

(b) Work out \(\frac{2}{3}\) of 42

........................................................................................................... [1]
27 (a) Here are the heights of some children.

134 cm  142 cm  156 cm  145 cm

Calculate the range of their heights.

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

(b) The range of the heights of three adults is 17 cm.

Write down possible heights of the shortest and tallest adults.

............. cm  165 cm  ............ cm  [1]
28 (a) Write three different whole numbers in the boxes to make the multiplication correct.

The numbers must be greater than 1.

\[ \square \times \square \times \square = 60 \]  

[1]

(b) Write whole numbers in the boxes to make this division correct.

The numbers must be greater than 1.

\[ \square \div \square = 60 \]  

[1]

29 Write in the missing digits to make this calculation correct.

\[ \square \ 7 \ \square \ \underline{6} \times \]  

\[ \underline{1} \ 0 \ 3 \ 2 \]  

[1]
30 Here is a compound shape made from two rectangles.

(a) Calculate the perimeter of the shape.

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

(b) Calculate the area of the shape.

......................................................... cm² [1]