candidates answer on the question paper.

additional materials: pen
pencil
ruler
protractor
calculator

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 Here are five number cards.

A Fifty-six

B Six thousand, five hundred and fifty-five

C Six thousand, five hundred and fifty

D Sixty-five

E Six thousand, five hundred and five

Write the letter of the card that is the answer to

(a) \( 650 \div 10 = \) ................................................................. [1]

(b) \( 655 \times 10 = \) ................................................................. [1]

2 Here is part of a number line.

Which number is shown by the arrow?

................................................................. [1]
3  Complete these number facts.

\[ \square + \frac{1}{4} = 1 \]

\[ 1 + \frac{1}{2} = 1 \]

[1]

4  (a) Sunilla counts the number of men, women and children attending a concert.

The pictogram shows some of her results.

<table>
<thead>
<tr>
<th>Women</th>
<th>Men</th>
<th>Children</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Key:** \( \bigcirc \) represents 20 people

She counts 90 children.

Complete the pictogram. [1]

(b) Why would it not be a good idea for Sunilla to draw her pictogram using a scale of one symbol to represent 2 people?

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---------------------------------------------------------------------------------

[1]
5 (a) Mount Everest is eight thousand, eight hundred and fifty metres high. Draw a ring around the number which shows this height in figures.

885 m  8805 m  8815 m  8850 m  88 050 m

(b) The River Rhine is 1236 kilometres long. Round this length to the nearest ten kilometres.

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

6 The first 5 numbers in a sequence are

6,  8,  12,  18,  26, ...

The sequence continues in the same way.

What is the next number in the sequence?

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

7 Join dots to draw 2 more lines to make an isosceles triangle.
8  (a) Draw a ring around all the numbers in the list below that are multiples of 8

2  4  8  20  24  46  56  60

(b) Draw a ring around two numbers in the list below that are multiples of both 4 and 6

12  16  20  32  36  42

9  Draw a line to match each fraction with the equivalent percentage. The first one has been done for you.

\[
\frac{7}{10} \quad 30\%  \\
\frac{1}{2} \quad 70\%  \\
\frac{3}{10} \quad 50\%  \\
\frac{15}{100} \quad 3\%  \\
\frac{3}{100} \quad 15\%  
\]
10 Two points have been marked on a grid.

(a) Give the co-ordinates for point A.

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

(b) Point B is translated 4 squares to the right.

Plot this new position on the grid. [1]
11 In a school cupboard there are 5 sacks of footballs, 6 sacks of rugby balls and 3 sacks of basketballs.

Each sack holds 16 balls.

(a) How many balls are there altogether?

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

(b) A teacher takes out 2 sacks of footballs and 1 sack of rugby balls.

How many balls are left in the cupboard?

................................................................................. balls [1]
12 Michael and Gareth use this recipe to make cupcakes.

**Cupcakes**

For 12 cupcakes:
- 120g butter
- 100g caster sugar
- 100g self-raising flour
- 2 eggs
- 1/4 teaspoon vanilla extract

(a) Michael wants to make 24 cupcakes. Work out how much butter he needs.

\[\text{\underline{\hspace{3cm}} g}\] \[\text{[1]}\]

(b) Gareth has all the ingredients in the recipe, except he only has one egg. How many cupcakes can he make?

\[\text{\underline{\hspace{3cm}} }\] \[\text{[1]}\]

13 Work out

\[(14.8 + 17.2) \times 1.25\]

\[\text{\underline{\hspace{3cm}} }\]

\[120 + (12 - 4.5)\]

\[\text{\underline{\hspace{3cm}} }\] \[\text{[1]}\]
14 Calculate angles $x$ and $y$.

(a) \[ \text{NOT DRAWN TO SCALE} \]

\[ x = \ \boxed{} \quad \text{[1]} \]

(b) \[ \text{NOT DRAWN TO SCALE} \]

\[ y = \ \boxed{} \quad \text{[1]} \]

15 Change $\frac{22}{7}$ to a mixed number.

\[ \boxed{} \quad \text{[1]} \]
16 The rule to convert miles to kilometres is:

Multiply number of miles by 8 then divide by 5

Use this rule to convert 4 miles into kilometres.

\[ \text{4 miles} \times 8 / 5 \]  \hspace{1cm} \text{kilometres} \ [1] 

17 Jenny thinks of two prime numbers.
Both numbers are bigger than 10
The sum of her numbers is 28
What are the two numbers that Jenny is thinking of?

\[ \text{Number 1} \] and \[ \text{Number 2} \] \ [1] 

18 Kamal buys a packet of 24 biscuits.
He eats 6 biscuits.

Draw a ring around the percentage which gives the amount of biscuits he did not eat.

25% 50% 60% 75% 80% \ [1]
A school has 120 children.

\[ \frac{3}{10} \] of the children have school dinners.

(a) How many children have school dinners?

\[ \text{\textbf{\underline{\hspace{4cm}} children [1]}} \]

(b) \[ \frac{1}{6} \] of the children who have school dinners have the vegetarian option.

How many children have the vegetarian option?

\[ \text{\textbf{\underline{\hspace{4cm}} children [1]}} \]
20 The table shows the midday temperature in Ahmed's village for one week.

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
<th>Sunday</th>
</tr>
</thead>
<tbody>
<tr>
<td>18°C</td>
<td>24°C</td>
<td>20°C</td>
<td>25°C</td>
<td>27°C</td>
<td>40°C</td>
<td>21°C</td>
</tr>
</tbody>
</table>

(a) Find the median midday temperature.

\[ \text{Median temperature} = \text{[1]} \] °C

(b) Work out the mean midday temperature for the week.

\[ \text{Mean temperature} = \text{[1]} \] °C

21 Here are the prices of some cinema tickets.

Complete the prices so that they have a mode of $4 and a range of $3.

\[ \text{Prices: } \$5, \$3, \$5, \text{[2]} \]
The cost of some items in a decorating store is shown.

- Paintbrush: $2.40
- Stepladder: $18.70
- Paint: $13

Freddie has $100.

He buys two paintbrushes and a stepladder.

Work out how many cans of paint he can buy with the money he has left.

Show how you worked out your answer.
23 Here is a fair number spinner.

(a) What number is the arrow most likely to land on?

(b) Draw a ring around the word that describes the likelihood of it landing on a 5

Likely  Unlikely  Certain  Even-chance  Impossible

24 Harry is 1.82 m tall.
Daniel is half as tall as Harry.
Daniel is 9 cm taller than his sister Edith.

Work out Edith’s height in metres.

metres [2]
Here is part of a bus timetable.

<table>
<thead>
<tr>
<th>Location</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fenton</td>
<td>08 38</td>
</tr>
<tr>
<td></td>
<td>09 25</td>
</tr>
<tr>
<td></td>
<td>10 06</td>
</tr>
<tr>
<td></td>
<td>10 50</td>
</tr>
<tr>
<td>Kibstock</td>
<td>09 07</td>
</tr>
<tr>
<td></td>
<td>10 02</td>
</tr>
<tr>
<td></td>
<td>10 38</td>
</tr>
<tr>
<td></td>
<td>11 25</td>
</tr>
<tr>
<td>Pentwell</td>
<td>09 35</td>
</tr>
<tr>
<td></td>
<td>10 37</td>
</tr>
<tr>
<td></td>
<td>11 05</td>
</tr>
<tr>
<td></td>
<td>11 47</td>
</tr>
<tr>
<td>Leadtown</td>
<td>10 11</td>
</tr>
<tr>
<td></td>
<td>11 09</td>
</tr>
<tr>
<td></td>
<td>11 48</td>
</tr>
<tr>
<td></td>
<td>12 14</td>
</tr>
</tbody>
</table>

(a) Mr Hasan travels from Fenton to Leadtown. He catches the 08 38 bus.

How long will his journey last?

Give units with your answer.

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

(b) Mrs Shah lives in Kibstock and needs to be in Pentwell by 11 35

What is the latest bus she can catch from Kibstock?

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