1. Work out.

<table>
<thead>
<tr>
<th></th>
<th>145 + 325 = ______</th>
<th>3456 - 248 = ______</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>23 × 19 = ______</th>
<th>224 ÷ 16 = ______</th>
</tr>
</thead>
<tbody>
<tr>
<td>c)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(4 marks)

2. Tick (✓) the correct answer in each of the following.

a) Look at this net.

i) This is the net of a
cube  cuboid  cylinder

ii) How many faces does this 3-d shape have?

6  8  12

iii) How many vertices does this 3-d shape have when closed?

6  8  12

b) A 3-d shape with 1 face, no edges and no vertices is a
circle  sphere  cylinder

(4 marks)
3. This is the plan of a village.

Fill in the blanks with compass directions.

a) Adam’s Flat is __________________________ of the Park.

b) The Police Department is __________________________ of the Park.

c) The School is __________________________ of Adam’s Flat.

d) The School is __________________________ of the Hospital.

(4 marks)
4. George has \(1.5\) kg of sugar.

He buys another \(\frac{3}{4}\) kg of sugar.

Then, he packs all the sugar in packets of \(10 \text{ g}\) each.

How many packets of sugar can George fill?

Show your working here.

\[\text{packets}\]

(4 marks)

5. What fraction is shaded?

a) \[
\begin{array}{ccc}
\square & \square & \square \\
\end{array}
\]

b) \[
\begin{array}{ccc}
\square & \square & \square \\
\square & \square & \square \\
\square & \square & \square \\
\square & \square & \square \\
\square & \square & \square \\
\end{array}
\]

c) \[
\begin{array}{ccc}
\square & \square & \square \\
\end{array}
\]

(5 marks)
6a) Use a protractor to measure angle \( a \).

\( \includegraphics[width=0.5\textwidth]{triangle.png} \)

\( a = \_\_\_ \)

b) An angle of \( 100^\circ \) is obtuse. Explain why.

\[ \text{________________________________________} \]
\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]

\[ \text{_________________________________________________} \]
7. Fill in using the number cards in each question only once. 
There are extra cards in some of the questions.

a) I am the largest 4-digit even number you can make with these cards.
What number am I?

\[
\begin{array}{cccc}
3 & 5 & 0 & 6 \\
\end{array}
\rightarrow 
\begin{array}{c}
\hline
\end{array}
\]

b) I am a 3-digit number, smaller than 400, but greater than 300.
I am divisible by both 6 and 10.
What number am I?

\[
\begin{array}{cccc}
3 & 5 & 0 & 6 \\
\end{array}
\rightarrow 
\begin{array}{c}
\hline
\end{array}
\]

c) I am a 2-digit odd number and a multiple of both 7 and 9.
What number am I?

\[
\begin{array}{cccc}
3 & 5 & 0 & 6 \\
\end{array}
\rightarrow 
\begin{array}{c}
\hline
\end{array}
\]

d) I am a 4-digit number.
When rounded to the nearest 100, I become 3700.
What number am I?

\[
\begin{array}{cccc}
3 & 5 & 0 & 6 \\
\end{array}
\rightarrow 
\begin{array}{c}
\hline
\end{array}
\]

(5 marks)
8a) The table below shows the capacity of some containers.

Write litres (l) or millilitres (ml) to complete the capacity.

<table>
<thead>
<tr>
<th>cup</th>
<th>water tank</th>
<th>saucepan</th>
<th>tin of paint</th>
</tr>
</thead>
<tbody>
<tr>
<td>70 ____</td>
<td>10 ____</td>
<td>2.8 ____</td>
<td>550 ____</td>
</tr>
</tbody>
</table>

b) How many such cups of water are needed to fill the above saucepan?

Show your working here.

[Space for working]

______ cups

(5 marks)
9. Lorna leaves home at 15:25 to go to football training.

a) **Draw** this time on the clock.

![Clock Image]

b) Training starts **45 minutes later**.
At **what time** does training **start**?
Give your answer in **24-hour clock time**.

Show your working here.

[Blank space for working]

______:_____

(5 marks)

(b) Answer:

______:_____

(5 marks)

(c) Lorna’s football training session is **1 \(\frac{1}{2}\) hours long**.
At **what time** does the training session **end**?
Give your answer in **12-hour clock time**.

Show your working here.

[Blank space for working]

______:_____

(5 marks)

(c) Answer:

______:_____

(5 marks)
10. **200,140 tourists** arrived in Malta during the winter season.

- **20%** of them were from **Italy**.
- **$\frac{1}{4}$** of them were from **Germany**.
- The rest were from **other countries**.

a) What **percentage** of tourists came from **Germany**?  

b) How many **tourists** came from **Italy**?

```
Show your working here.
```


ci) What **percentage** of tourists came from **other countries**?  

ii) Write your answer as a **fraction** in its **lowest terms**.

(5 marks)
11a) Look at the shapes below.

\[ \begin{array}{c}
\text{A} & \text{B} \\
10 \text{ cm} & 5 \text{ cm} \\
1 \text{ cm} & 5 \text{ cm} \\
\text{C} & \text{D} \\
4 \text{ cm} & 2 \text{ cm} \\
6 \text{ cm} & 5 \text{ cm} \\
\end{array} \]

i) Which of the above shapes (A, B, C, D) have:

- the same area? \( ____ \) and \( ____ \)
- the same perimeter? \( ____ \) and \( ____ \)

ii) The total area of two of the above shapes is \( 49 \text{ cm}^2 \).

The two shapes are \( ____ \) and \( ____ \).

b) The rectangle below represents a pool.

\[ \begin{array}{c}
\text{Pool} \\
\text{Perimeter} = 26 \text{ m} \\
\text{Breadth} = \_\_\_\_ \text{ m} \\
\text{Area} = \_\_\_\_ \text{ m}^2 \\
\end{array} \]

(5 marks)
12. Liam has a number of books to pack in boxes. He has fewer than 30 books.

When he packs 6 books in each box, there are 3 books left.

When he packs 8 books in each box, there are 5 books left.

How many books does he have?

Show your working here.

____ books

(5 marks)
13. The bar chart below shows the amount of rainfall in London during the last 6 months of a particular year.

![Rainfall in London](image)

a) The **total amount of rainfall** during these 6 months was **880 mm**.

i) Work out the amount of rainfall in **September**.

Show your working here.

ii) Complete the **bar chart** for the month of **September**.

b) The **least amount of rainfall** was in _____________.

(6 marks)
14. The following table shows the height of a group of children.

<table>
<thead>
<tr>
<th>BOYS</th>
<th>GIRLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>James</td>
<td>Anne</td>
</tr>
<tr>
<td>120 cm</td>
<td>121 cm</td>
</tr>
<tr>
<td>Tom</td>
<td>Jane</td>
</tr>
<tr>
<td>125 cm</td>
<td>120 cm</td>
</tr>
<tr>
<td>Samuel</td>
<td>Danica</td>
</tr>
<tr>
<td>1.3 m</td>
<td>1 m 27 cm</td>
</tr>
<tr>
<td></td>
<td>Krista</td>
</tr>
<tr>
<td></td>
<td>132 cm</td>
</tr>
</tbody>
</table>

a) Work out the mean (average) height of this group of children.

Show your working here.

[Blank space for working]

b) Tick (✓) the sentence which is TRUE.

- The mean height of the boys is equal to the mean height of the girls.
- The total height of the boys is equal to the total height of the girls.

Explain your answer by showing the working.

Show your working here.

(6 marks)
15. At the Fun Park, the roller coaster has **23 carriages**. Each carriage holds **12 people**.

a) **How many people** are on the roller coaster when it is full?

Show your working here.

___ people

b) Below there are the ticket prices to go on the roller coaster.

<table>
<thead>
<tr>
<th>Ticket Prices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults: €4.50</td>
</tr>
<tr>
<td>Children: €3</td>
</tr>
<tr>
<td>Groups of 6: €20</td>
</tr>
</tbody>
</table>

A family of **10 people** want to go on the roller coaster. There are **3 children** in this family. What is the **best price** that this family can get?

Show your working here.

€__________

(6 marks)
16. Below there is the calendar for the month of June in the year 2016.

<table>
<thead>
<tr>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>27</td>
<td>28</td>
<td>29</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

a) Maria’s birthday is on 1\textsuperscript{st} July.
On which day will she celebrate her birthday in 2016?

- Monday [ ]
- Tuesday [ ]
- Friday [ ]
- Saturday [ ]

b) Today is Thursday, 2\textsuperscript{nd} June 2016.
There are 100 more days to go for Gianni’s birthday.
On which day will Gianni celebrate his birthday in 2016?

- Monday [ ]
- Tuesday [ ]
- Friday [ ]
- Saturday [ ]

c) Maria and Gianni are invited to their friend’s birthday party today.
The party starts at half past four.
Tick (✓) the clock face below that shows the starting time of the party.
Note: All clocks below have lost their minute hand!