Kilograms and Kilometres
There are 1000g in a kilogram. Convert the mass of each suitcase.

15.09kg

21½kg

10 030g

_______ grams

_______ grams

_______ kg
There are 1000m in a kilometre. Convert the distance of each journey.

- 6.7km = _______ metres
- 29.58km = _______ metres
- 3 765 000 metres = _______ km
I ride 1¼km on my bike everyday for five days. I ride a total distance of 6250 metres.

Is Sam correct? Explain your answer.

Sam is correct.

1¼km = 1250m

1250 × 5 = 6250
Here are the prices of grapes at two different shops.

At which shop are the grapes better value for money? Explain how you know.

<table>
<thead>
<tr>
<th>Shop A</th>
<th>Shop B</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Grapes" /></td>
<td><img src="image2" alt="Grapes" /></td>
</tr>
<tr>
<td>1500g = £1.60</td>
<td>3/4kg = 90p</td>
</tr>
</tbody>
</table>

**Shop A is better value for money.**

3/4kg = 750g. 750g is half of 1500g.

Buying 750g from shop B is more than half of the cost of shop A.
Kilograms and Kilometres
There are 1000 millimetres in a metre. Convert the length of each skipping rope.

1.06 metres
2¾ metres
760mm
Convert each measurement and complete the comparison number sentence using <, > or =.

1.45 litres > 1500 ml

600 ml < 0.55 litres
A snail is exploring the garden.
The distance from the snail to the lawnmower is 8100mm further than the distance from the lawnmower to the garden gnome.

Write two true statements and one false statement about this diagram.

**Can your partner identify the incorrect statement?**
The capacity of this watering can is **1025ml**.

It takes three full watering cans to water the flowers in my garden.

To find the volume of water used in litres, I can divide 1025 by 10 and then multiply by 3.

Is Sam correct? **Explain your answer.**

Sam is incorrect.

He should divide 1350ml by 1000 to convert to litres and then multiply by 3 or multiply 1350ml by 3 and divide by 1000 to convert to litres.
A tower is built using two different heights of plastic bricks. How many of each brick could be in a tower that is exactly 500mm tall?

Find all the possibilities.

<table>
<thead>
<tr>
<th>Tall Brick</th>
<th>Small Brick</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>50</td>
</tr>
<tr>
<td>1</td>
<td>47</td>
</tr>
<tr>
<td>2</td>
<td>44</td>
</tr>
<tr>
<td>3</td>
<td>41</td>
</tr>
<tr>
<td>4</td>
<td>38</td>
</tr>
<tr>
<td>5</td>
<td>35</td>
</tr>
<tr>
<td>6</td>
<td>32</td>
</tr>
<tr>
<td>7</td>
<td>29</td>
</tr>
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<td>8</td>
<td>26</td>
</tr>
<tr>
<td>9</td>
<td>23</td>
</tr>
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<td>10</td>
<td>20</td>
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<tr>
<td>11</td>
<td>17</td>
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<td>12</td>
<td>14</td>
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<td>13</td>
<td>11</td>
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<tr>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>16</td>
<td>2</td>
</tr>
</tbody>
</table>

0.01 metres
Kilograms and Kilometres
• Complete these conversions.

\[
\frac{3}{4} \text{ km} = \underline{\phantom{0000}} \text{ metres} \quad 0.04 \text{ metres} = \underline{\phantom{0000}} \text{ m}
\]

\[
19 \text{ cm} = \underline{\phantom{0000}} \text{ mm} \quad 29000 \text{ mm} = \underline{\phantom{0000}} \text{ metres}
\]

• Complete these partitioned lengths.

\[
7200 \text{ metres} = 7 \text{ km} + \underline{\phantom{0000}} \text{ m}
\]
\[
330 \text{ cm} = 3 \text{ metres} + \underline{\phantom{0000}} \text{ metres}
\]
\[
260 \text{ mm} = 20 \text{ cm} + \underline{\phantom{0000}} \text{ cm}
\]
\[
42750 \text{ mm} = 40 \text{ metres} + \underline{\phantom{0000}} \text{ metres}
\]
• Complete these conversions.

\[
\frac{3}{4} \text{ km} = \underline{750} \text{ metres} \quad 0.04 \text{ metres} = \underline{4} \text{ m}
\]

\[
19 \text{ cm} = \underline{190} \text{ mm} \quad 29000 \text{ mm} = \underline{29} \text{ metres}
\]

• Complete these partitioned lengths.

\[
7200 \text{ metres} = 7 \text{ km} + \underline{0.2} \text{ km}
\]

\[
330 \text{ cm} = 3 \text{ metres} + \underline{0.3} \text{ metres}
\]

\[
260 \text{ mm} = 20 \text{ cm} + \underline{6} \text{ cm}
\]

\[
42750 \text{ mm} = 40 \text{ metres} + \underline{2.75} \text{ metres}
\]
The length of a toy car is 73mm.

If I put 100 of these toy cars in a straight line, the line will measure 7.03m.

Sam is incorrect.

$73mm \times 100 = 7300mm$

$7300mm$, when converted to metres, is 7.3m.
The shop sells wood in metre lengths.

To build a tree house, I need 2870cm of wood. I need to ask the shopkeeper for 287 metres of wood.

Sharon is incorrect as she has only divided by 10 when she should have divided by 100.

\[
2870\text{cm} \div 100 = 28.7\text{m}
\]

As the shop only sells wood in metre lengths, she would need to ask for 29m of wood.
Passengers can travel between five holiday islands using this free aeroplane service.

The small aeroplane travels from island A back to island A. It visits each of the other islands only once and must visit island B first. There are two possible routes that the aeroplane can fly.

Find the distance of the two possible aeroplane routes in kilometres.

Route: A, B, C, D, E, A = 254km
Route: A, B, C, E, D, A = 358km

What is the difference, in centimetres, between the total distance of the two possible journeys?

358km - 254km = 104km
= 1 040 000cm