# Millimetres and millilitres

**1** The bar model shows that 1 m is equal to 1,000 mm.

| 1 m |
|---|
| 1,000 mm |

Use the bar models to complete the conversions.

**a)**

| 1 m | 1 m | 1 m | 1 m | 1 m | 1 m |
|---|---|---|---|---|---|
| | | | | | |

6 m = [   ] mm

**b)**

| 1 m | 1 m | 1 m |
|---|---|---|
| | | |

3 m = [   ] mm
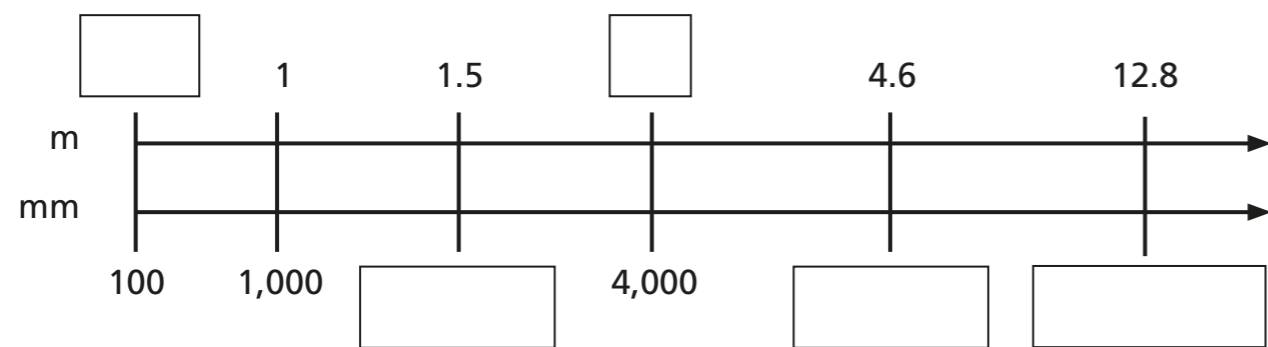
**c)**

| | | | | |
|---|---|---|---|---|
| 1,000 mm | 1,000 mm | 1,000 mm | 1,000 mm | 1,000 mm |

[   ] m = 5,000 mm

**2** Fill in the missing values to convert between metres and millimetres.

```
        [   ]        1      1.5    [   ]        4.6    12.8
m  ├──────────┼──────┼──────┼──────┼──────┼──────┤───►
mm ├──────────┼──────┼──────┼──────┼──────┼──────┤───►
        100   1,000  [   ]   4,000  [   ]  [   ]
```

**3** Alex and Jack are converting 3.5 m into millimetres.

Alex: I'm going to use bar models.

Jack: I'm going to use a double number line.

**a)** Complete both methods to show that they get the same answer.

**Alex's method**

| |
|---|
| |

**Jack's method**

```
├──────┼──────────►
│      │
├──────┼──────────►
```

**b)** Complete the conversion.       3.5 m = [   ] mm

**c)** Whose method do you prefer? _____

Explain your answer.

**4** Use the information to complete the representations and conversions.

1 litre = 1,000 ml

**a)**
```
        1              5
l  ├──────────┼──────────┼──────
ml ├──────────┼──────────┼──────
        1,000        [   ]
```

5 l = [   ] ml

**b)**
```
        1              6.7
l  ├──────────┼──────────┼──────
ml ├──────────┼──────────┼──────
        1,000        [   ]
```

6.7 l = [   ] ml

**c)**

| 1 l | 1 l | 1 l | 1 l |
|---|---|---|---|
| 1,000 ml | | | |

4 l = ◻ ml

**d)**

| 1l | | | |
|---|---|---|---|
| 1,000 ml | 1,000 ml | 1,000 ml | 500 ml |

◻ l = 3,500 ml

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**5** Complete the conversions.

**a)** 15 m = ◻ mm

**b)** 15 l = ◻ ml

**c)** 63,000 ml = ◻ l

**d)** 47,500 mm = ◻ m

**e)** 11.05 m = ◻ mm

**f)** ◻ ml = 71.25 l

**g)** ◻ mm = 0.1 m

**h)** 100 l = ◻ ml

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**6** Eva wants to go on a ride at a theme park.

I am 1,010 mm tall.

**Rollercoaster**

**Minimum height**

**1.1 m**
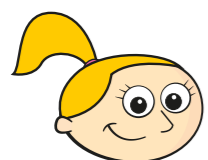
Can Eva go on the ride? _____

Explain your answer.

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**7** Write <, > or = to compare the measurements.

**a)** $\frac{2}{5}$ km ◯ 600 m

**b)** $\frac{9}{10}$ l + 100 ml ◯ 1,000 ml

**c)** 0.8 km − 300 m ◯ $\frac{7}{10}$ km

**d)** $\frac{1}{5}$ l + 200 ml + $\frac{4}{5}$ ml ◯ $\frac{1}{4}$ l + 1 l

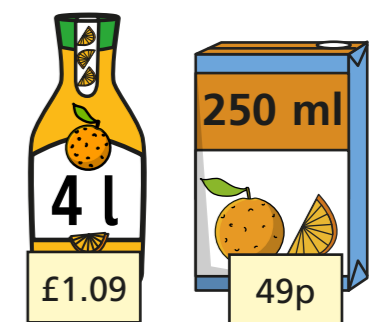---

**8** A piece of string is 2.76 m long.

How many 30 mm pieces can be cut from the string?

◻ pieces

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**9** Orange juice is sold in bottles and cartons.

**250 ml**

**4 l**

**£1.09**

**49p**

**a)** Which is better value, the carton or the bottle? _____

Explain your answer.

**b)** Dexter buys 12 cartons and 5 bottles of juice.

He pours them into glasses with 200 ml of juice in each glass.

He sells each glass of juice for 40p.

He sells all the glasses of juice.

How much profit does he make?

◻