

## Converting metric units of area and volume

1. Fill in the gaps to convert the following measurements of area:

- a.  $1 \text{ cm}^2 = 100 \text{ mm}^2$                       b.  $3.5 \text{ cm}^2 = 350 \text{ mm}^2$                       c.  $7 \text{ m}^2 = 70\,000 \text{ cm}^2$   
d.  $27 \text{ mm}^2 = 2700 \text{ cm}^2$                       e.  $143 \text{ cm}^2 = 0.0143 \text{ m}^2$                       f.  $34 \text{ cm}^2 = 340\,000 \text{ mm}^2$   
g.  $3\,000\,000 \text{ m}^2 = 3 \text{ km}^2$                       h.  $4.3 \text{ km}^2 = 4\,300\,000 \text{ m}^2$                       i.  $3 \text{ m}^2 = 3\,000\,000 \text{ mm}^2$

2. Fill in the gaps to convert the following measurements of volume:

- a.  $4 \text{ cm}^3 = 4\,000 \text{ mm}^3$                       b.  $17.2 \text{ cm}^3 = 17200 \text{ mm}^3$   
c.  $12 \text{ m}^3 = 12\,000\,000 \text{ cm}^3$                       d.  $5\,620 \text{ cm}^3 = 0.00562 \text{ m}^3$   
e.  $364\,000 \text{ m}^3 = 0.000\,364 \text{ km}^3$                       f.  $0.6 \text{ m}^3 = 600\,000\,000 \text{ mm}^3$   
e.  $0.26 \text{ km}^3 = 260\,000\,000 \text{ m}^3$                       f.  $7.8 \text{ mm}^3 = 0.0078 \text{ cm}^3$

3. A bottle of coke contains 2 litres. Jeevan pours  $300 \text{ cm}^3$  into a cup.

How much coke is left in the bottle in cubic centimetres?                       **$1700 \text{ cm}^3$**

4. A cuboid water tank is 4 metres tall, 4 metres long and 3 metres wide.

- a. What is the volume of the tank in cubic metres?                       **$48 \text{ m}^3$**   
b. How many litres of water will the tank hold?                       **$48\,000 \text{ litres}$**

5. A house has a loft of width 700 centimetres and length 1 100 centimetres.

Loft insulation costs £3 per square metre.

How much will it cost to cover the entire loft with insulation?                      **£231**

6. A swimming pool contains 375 000 litres of water. It has a base of 25 metres by 10 metres and is the same depth all over.

How deep is the pool?                       **$1.5 \text{ m}$**