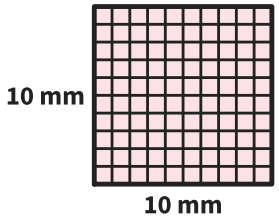
Converting units of area and volume

ANSWERS

1

Convert 6 cm^2 to mm^2.



1 cm is 10 mm each way

1 cm^2 = 10 **×** 10 **=** 100 **mm^2**

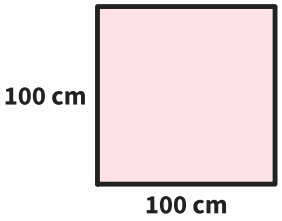
smaller unit, so multiply

6 × 100 **=** 600 **mm^2**

Answer 600 mm^2

2

Convert 2.4 m^2 to cm^2.



1 m is 100 cm each way

1 m^2 = 100 **×** 100 **=** 10 000 **cm^2**

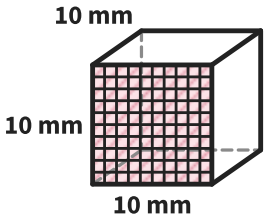
smaller unit, so multiply

2.4 × 10 000 **=** 24 000 **cm^2**

Answer 24 000 cm^2

3

Convert 3 cm^3 to mm^3.



1 cm is 10 mm each way

1 cm^3 = 10 **×** 10 **×** 10 **=** 1000 **mm^3**

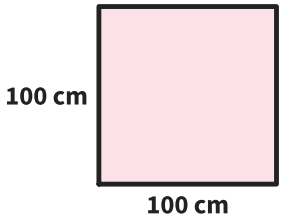
smaller unit, so multiply

3 × 1000 **=** 3000 **mm^3**

Answer 3000 mm^3

4

Convert 50 000 cm^2 to m^2.



1 m is 100 cm each way

1 m^2 = 100 **×** 100 **=** 10 000 **cm^2**

bigger unit, so divide

50 000 ÷ 10 000 **=** 5 **m^2**

Answer 5 m^2

5

Convert 0.7 m^3 to cm^3.

100 × 100 × 100 = 1 000 000

0.7 × 1 000 000

Answer 700 000 cm^3

6

Jade says 5 m^2 = 500 cm^2.
Explain Jade's mistake.
Then convert 5 m^2 to cm^2.

1 m^2 = 10 000 cm^2, not 100

5 × 10 000

Answer 50 000 cm^2

7

Convert 8500 mm^3 to cm^3.

1 cm^3 = 10 × 10 × 10 = 1000 mm^3

8500 ÷ 1000

Answer 8.5 cm^3

8

A tin of paint holds 4500 cm^3.
1 litre = 1000 cm^3. How many litres of paint does the tin hold?

bigger unit, so divide

4500 ÷ 1000

Answer 4.5 litres

Converting units of area and volume *further practice*

ANSWERS

9

Convert 360 mm² to cm².

1 cm² = 100 mm²

360 ÷ 100

Answer 3.6 cm²

10

Which is bigger, 2.5 m² or 24 000 cm²? Show how you know.

2.5 × 10 000 = 25 000 cm²

25 000 > 24 000

Answer 2.5 m²

11

A tablecloth is a rectangle 2 m long and 1.5 m wide. Find its area in cm².

2 × 1.5 = 3 m²

3 × 10 000

Answer 30 000 cm²

12

Fill in the boxes. (1 litre = 1000 cm³)

0.04 m³ = 40 000 **cm³**

= 40 **litres**

13

A floor has an area of 18 m². It is covered with square tiles 30 cm by 30 cm.
How many tiles are needed?

18 × 10 000 = 180 000 cm²

30 × 30 = 900 cm², 180 000 ÷ 900

Answer 200 tiles

14

Write these areas in order, smallest first.

0.3 m² **2900 cm²** **310 000 mm²**

0.3 m² = 3000 cm²

310 000 mm² = 3100 cm²

Answer 2900 cm², 0.3 m², 310 000 mm²

15

A rainwater tank is a cuboid 1.5 m long, 80 cm wide and 50 cm high.
How many litres does it hold when it is full? (1 litre = 1000 cm³)

150 × 80 × 50 = 600 000 cm³

600 000 ÷ 1000

Answer 600 litres

16

Kai says that 2 m³ of water is 200 litres.
Is Kai right? Explain. (1 litre = 1000 cm³)

2 × 1 000 000 = 2 000 000 cm³

2 000 000 ÷ 1000 = 2000 litres

Answer No, 2000 litres