

Area and Volume Unit Conversions

For AQA GCSE Mathematics (8300) • Foundation tier

Name _____

Total marks: **25**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method.

- 1** How many square centimetres are there in 1 square metre?
Circle your answer.

[1 mark]

10

100

1000

10 000

- 2** Which of these is equal to 42 000 cm²?
Circle your answer.

[1 mark]

0.42 m²

4.2 m²

42 m²

420 m²

- 3** How many cubic centimetres are there in 1 litre?
Circle your answer.

[1 mark]

10

100

1000

10 000

4 (a) Convert 5 m^2 to cm^2

[1 mark]

Answer _____ cm^2

(b) Convert 3 cm^2 to mm^2

[1 mark]

Answer _____ mm^2

(c) Convert $45\,000 \text{ cm}^2$ to m^2

[1 mark]

Answer _____ m^2

5 (a) Convert 2 m^3 to cm^3

[1 mark]

Answer _____ cm^3

(b) Convert 7500 cm^3 to litres.

[1 mark]

Answer _____ litres

6 A rectangle is 2.5 m long and 80 cm wide.

(a) Work out the area of the rectangle in m^2

[2 marks]

Answer _____ m^2

(b) Write your answer to part (a) in cm^2

[1 mark]

Answer _____ cm^2

7 Ed says,

'1 m = 100 cm, so $1 \text{ m}^2 = 100 \text{ cm}^2$ '

Is Ed correct? Tick a box.

Give a reason for your answer.

[1 mark]

☐ Yes

☐ No

8 A fish tank is a cuboid.

It is 60 cm long, 30 cm wide and 40 cm high.

How many litres of water does the tank hold when it is full?

[3 marks]

Answer _____ litres

- 9** A rectangular room is 450 cm long and 380 cm wide.
Carpet costs £14 per m²
The whole floor is covered with carpet.
Work out the cost of the carpet.

[3 marks]

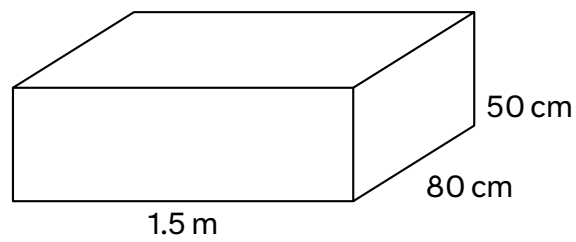
Answer £ _____

- 10** Square tiles have side length 20 cm.
How many tiles are needed to cover 1 m²?

[2 marks]

Answer _____

- 11** Jess has an empty garden pond in the shape of a cuboid. She fills it with water from a hose. The water flows at 15 litres per minute. She starts filling the pond at 9:40 am.



Not drawn accurately

$$1000 \text{ cm}^3 = 1 \text{ litre}$$

At what time will the pond be full?

[5 marks]

Answer _____