

Converting units of area and volume

Grade 5 | Foundation and Higher | 11 questions, 27 marks

GCSE Maths topic practice



Scan for the solutions

Name: _____

Date: _____

Score: _____ / 27

1 Change 3.5 m^2 to cm^2 .

(1 mark)

Answer _____

2 Change $25\,000 \text{ cm}^2$ to m^2 .

(1 mark)

Answer _____

3 Change 6 cm^3 to mm^3 .

(1 mark)

Answer _____

4 Change 450 mm^2 to cm^2 .

(1 mark)

Answer _____

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

a. Change 2.4 litres to cm^3 .

b. Change 7500 cm^3 to litres.

(2 marks)

Answer _____

6 Change 0.35 m^3 to cm^3 .

(2 marks)

Answer _____

7 $1 \text{ km}^2 = 1\,000\,000 \text{ m}^2$ and $1 \text{ hectare} = 10\,000 \text{ m}^2$.

a. A nature reserve has an area of 0.6 km^2 . Write this area in m^2 .

b. Write the area of the reserve in hectares.

c. A farmer owns 3.5 hectares of land. Write this in m^2 .

(3 marks)

Answer _____

8 A rectangular water tank measures 2 m by 1.5 m by 80 cm. $1 \text{ m}^3 = 1000 \text{ litres}$.

Work out how many litres of water the tank holds when it is full.

(3 marks)

Answer _____

9 A rectangular floor measures 3.2 m by 2.4 m. It is covered with square tiles of side 20 cm.

Work out how many tiles are needed. Assume there is no gap between tiles and none are cut.

(4 marks)

Answer _____

10 Water flows out of a pipe at a rate of 0.9 m^3 per minute.

$1 \text{ m}^3 = 1000 \text{ litres}$

Work out the rate of flow in litres per second.

(4 marks)

Answer _____

11

Room A has a floor area of 84 m^2 and is shared by 24 people.

Room B has a floor area of $540\,000 \text{ cm}^2$ and is shared by 15 people.

- Which room gives more floor area per person? You must show your working.
- Cal says " $540\,000 \text{ cm}^2 = 5400 \text{ m}^2$ because $100 \text{ cm} = 1 \text{ m}$ ". Explain the mistake Cal has made.

(5 marks)

Answer

End of questions | Total 27 marks