

Topic Test 1 (20 minutes)

Measures - Higher

1 Convert 2 m² into cm²

Circle your answer.

[1 mark]

20 cm²

200 cm²

2000 cm²

20 000 cm²

2 1 inch = 2.54 cm

Convert 127 cm² into square inches.

[2 marks]

Answer _____

3 Adam's weight to the nearest kilogram is 65 kg

3 (a) What is the greatest possible value of his weight?

[1 mark]

Answer _____ kg

3 (a) What is the least possible value of his weight?

[1 mark]

Answer _____ kg

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- 4** A solid cuboid is standing on a flat surface on one of its faces.
The cuboid has dimensions 3 cm by 4 cm by 5 cm
The cuboid has a mass of 0.5 kg

Work out the maximum pressure that the cuboid can exert on the surface.
Give your answer in kg/cm^2

[3 marks]

Answer _____ kg/cm^2

- 5** Convert 24 000 cm^3 into m^3

[1 marks]

Answer _____ m^3

- 6** Tom's car travels 40 miles per gallon.
One litre of petrol costs £1.19
1 gallon = 4.5 litres

Work out the cost of petrol when Tom drives 200 miles.

[4 marks]

Answer £ _____

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- 7 In a race, Alex runs at an average speed of 10 kilometres per hour.
Lucy runs at an average speed of 3 metres per second.

Who runs faster?
You **must** show your working.

[3 marks]

Answer _____

- 8 The mass of a block of wood is 750 grams.
The mass is given to 2 significant figures.

The volume of the block is 1500 cm³.
The volume is given to the nearest 10.

Given that $\text{density} = \frac{\text{mass}}{\text{volume}}$

Work out the smallest possible value of the block's density.

[4 marks]

Answer _____ g/cm³