

**1**

$$\text{Density} = \frac{\text{mass}}{\text{volume}}$$

The mass is divided by 2 and the volume is multiplied by 4

What happens to the density?

Circle your answer.

**[1 mark]**

$\times 2$

$\div 2$

$\times 8$

$\div 8$   $(1)$

- 2 A solid has volume  $300 \text{ cm}^3$  and density  $2 \text{ g/cm}^3$

Circle the mass of the solid.

[1 mark]

150 g

298 g

302 g

600 g



$$\text{mass} = 300 \times 2 = 600$$

3

A solid statue has volume  $512 \text{ cm}^3$   
The statue has mass 3.6 kilograms.

density of iron = 7.87 grams per cubic centimetre

Is the statue made of iron?

You **must** show your working.

[3 marks]

$$\text{mass of statue} = 3.6 \times 1000 = 3600 \text{ g} \quad (1)$$

$$\text{density of statue} = \frac{3600 \text{ g}}{512 \text{ cm}^3} \quad (1)$$

$$= 7.03 \text{ g/cm}^3 \quad (1)$$

No. The statue is not made of iron.