TASK **3.10**

Use 

to help you work out the questions below.

1. A solid weighs 450 g and has a volume of 50 cm^3. Find the density of this solid.

2. A liquid has a density of 2 g/cm^2. How much does the liquid weigh if its volume is 240 cm^3?

3. A metal bar has a density of 12 g/cm^3 and a mass of 360 g. Find the volume of the metal bar.

4. Copy and complete this table.

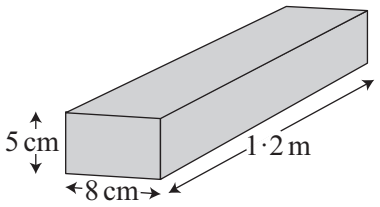
density (g/cm^3)	mass (g)	volume (cm^3)
7		90
	240	60
8	152	
	42	0·5
13	585	
1·5		140

5. Gold has a density of 19·3 g/cm^3. A gold ring has a volume of 1·1 cm^3. Find the mass of the gold ring.

6. A brass handle has a volume of 17 cm^3 and a mass of 139·4 g. Find the density of the brass.

7. Which has a greater volume — 102·6 g of lead with density 11·4 g/cm^3 or 78·85 g of steel with density 8·3 g/cm^3? Write down by how much.

8. The density of this metal bar is 7·4 g/cm^3.
Find the mass of this metal bar. Give your answer in kg.
(Note the length is given in metres.)



9. A metal cube of length 0·2 m has a density of 8·3 g/cm^3. A hole is bored through the cube with 485 cm^3 of metal being removed. What is the mass in kg of the remaining piece of metal?

10. A metal bar has 3 holes cut completely through its length. The cross-sectional area of each hole is y cm^2. The density of the metal is 9 g/cm^3.
Find the mass of the remaining piece of metal, giving your answer in terms of x and y.