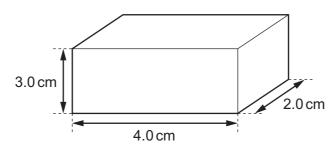
DENSITY-MASS-VOLUME-SET-4-QP

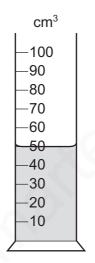
The diagram shows a block of metal of mass 72 g.

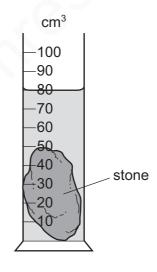


What is the density of the metal?

- $3.0\,\mathrm{g/cm^3}$
- **B** $6.0 \,\mathrm{g/cm^3}$
- **C** $9.0 \,\mathrm{g/cm^3}$
- 12 g / cm³

A stone of mass 60 g is placed in a measuring cylinder containing water. The water level in the measuring cylinder rises as shown.





What is the density of the stone?

- $0.50 \,\mathrm{g/cm^3}$
- **B** $0.75 \,\mathrm{g/cm^3}$
- **C** 1.3 g/cm³
- 2.0 g/cm³

A rectangular block of metal has dimensions of $5 \, \text{cm} \times 4 \, \text{cm} \times 3 \, \text{cm}$. The mass of the block is 162 g.

What is the density of the metal?

- **A** $0.37 \,\mathrm{g/cm^3}$
- **B** $2.7 \,\mathrm{g/cm^3}$ **C** $2700 \,\mathrm{g/cm^3}$ **D** $9720 \,\mathrm{g/cm^3}$

4

The diagram shows the readings on a thermometer before and after a reaction.



before the reaction

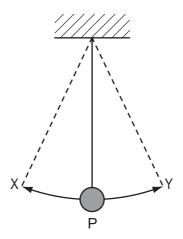
after the reaction

Which row shows the readings on the thermometer?

	before the reaction	after the reaction
Α	13.5	34.1
В	13.5	35.9
С	14.5	34.1
D	14.5	35.9

5

The diagram shows an object attached to a thread, swinging between point X and point Y, passing through point P.

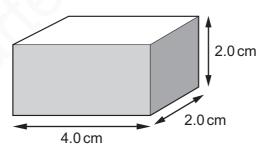


Which row best describes the kinetic energy and the gravitational energy of the object when it is passing through point P?

	kinetic energy	gravitational energy
Α	maximum	maximum
В	maximum	minimum
С	minimum	maximum
D	minimum	minimum

6

The rectangular block shown has a mass of 48 g.



What is the density of the block?

- **A** $0.17 \,\mathrm{g/cm^3}$
- **B** $0.33 \,\mathrm{g/cm^3}$
- **C** $3.0 \,\mathrm{g/cm^3}$
- \mathbf{D} 6.0 g/cm³

Inside an aeroplane, a parachutist has a mass of 70 kg.





What is his mass after he has jumped from the aeroplane?

- **A** 0 kg
- **B** between 0 kg and 70 kg
- **C** 70 kg
- D greater than 70 kg



The diagrams show four solid blocks with the same mass.

Which block is made from the least dense material?

