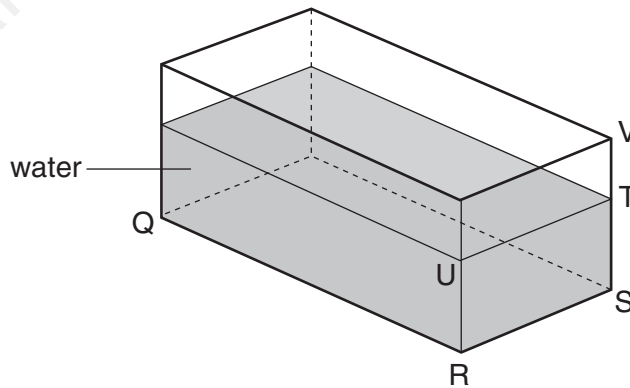


MEASUREMENT, DENSITY, MASS AND VOLUME-SET-1-QP

- 1** A glass tank contains some water.

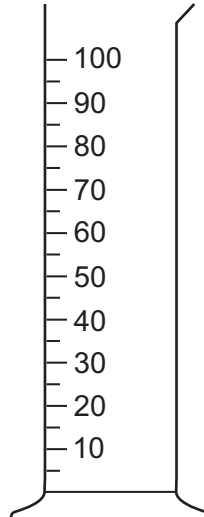


The length QR and the width RS of the tank are known.

What other distance needs to be measured in order to be able to calculate the volume of the water?

- A** ST **B** SV **C** TU **D** TV

- 2** The diagram shows a measuring cylinder.



Which unit would be most suitable for its scale?

- A** mm^2 **B** mm^3 **C** cm^2 **D** cm^3

- 3** Which statement about the mass of a falling object is correct?

- A** It decreases as the object falls.
B It is equal to the weight of the object.
C It is measured in newtons.
D It stays the same as the object falls.

4 Which of the following is a unit of density?

- A cm^3/g
- B g/cm^2
- C g/cm^3
- D kg/m^2

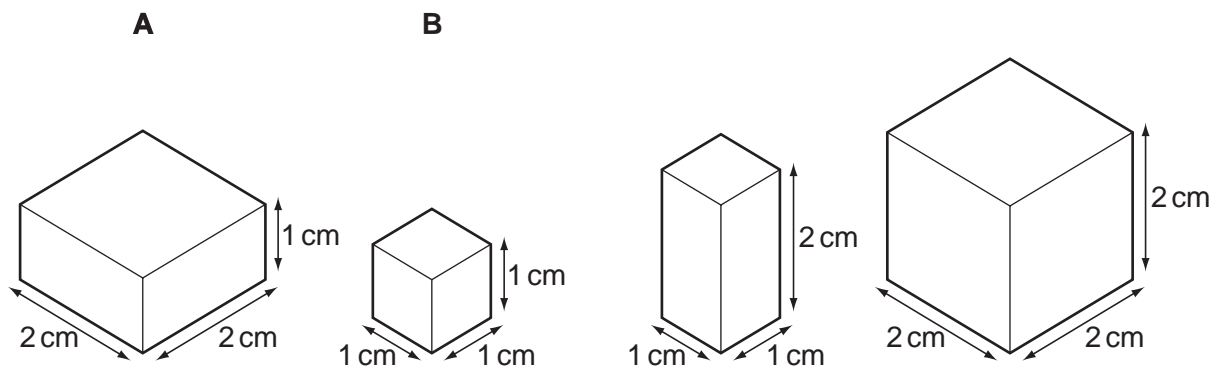
5 A decorator wishes to calculate the area of a bathroom tile so that he can estimate the amount of adhesive which he needs to buy.

What must he use?

- A a measuring cylinder only
- B a ruler only
- C a measuring cylinder and a clock only
- D a measuring cylinder and a ruler only

Each of the solids shown in the diagram has the same mass.

6 Which solid has the greatest density?



7 The diagram, which is not to scale, shows the planets Mars and Earth.



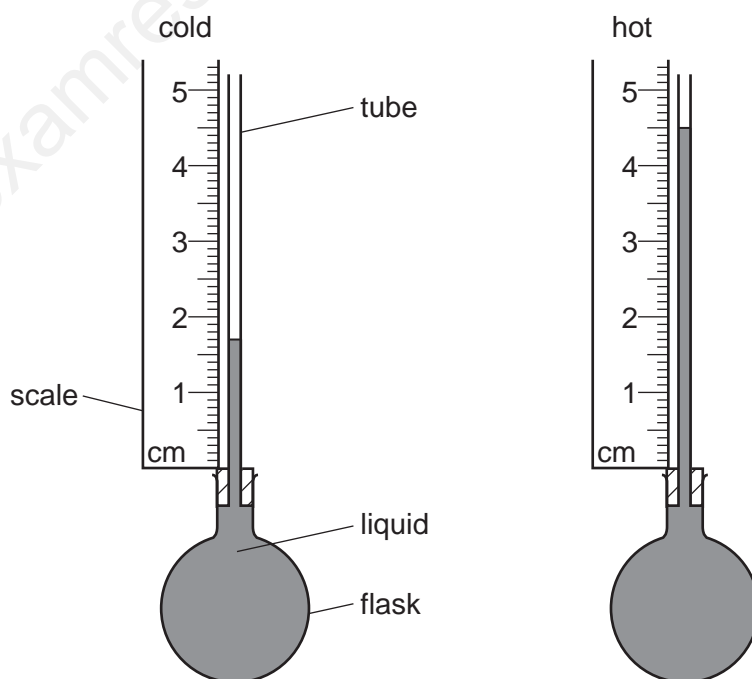
Which statement is correct?

- A Earth repels Mars but Mars attracts Earth.
- B Earth attracts Mars but Mars repels Earth.
- C Earth and Mars attract each other.
- D Earth and Mars repel each other.

8

Some liquid is heated in a flask.

The diagrams show the height of the liquid in the tube when the liquid is cold and when it is hot.

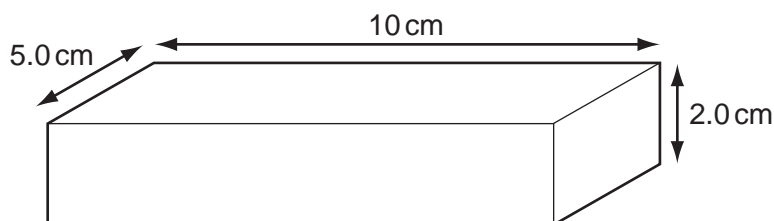


What is the difference in the heights?

- A** 1.7 cm **B** 2.8 cm **C** 3.2 cm **D** 4.5 cm

9

The diagram shows a rectangular metal block measuring 10 cm × 5.0 cm × 2.0 cm.



Its mass is 250 g.

What is the density of the metal?

- A** 0.20 g/cm³ **B** 0.40 g/cm³ **C** 2.5 g/cm³ **D** 5.0 g/cm³

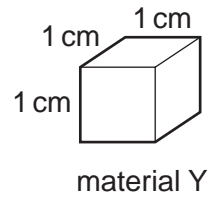
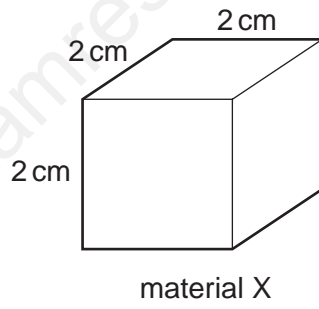
10

Which items of apparatus are required to determine the density of a liquid?

- A** balance and measuring cylinder
B balance and thermometer
C metre rule and measuring cylinder
D metre rule and thermometer

11

The cubes shown are made of different materials, but they have the same mass.



The density of material X is 1 g/cm^3 .

What is the density of material Y?

- A** $\frac{1}{8} \text{ g/cm}^3$ **B** $\frac{1}{2} \text{ g/cm}^3$ **C** 2 g/cm^3 **D** 8 g/cm^3