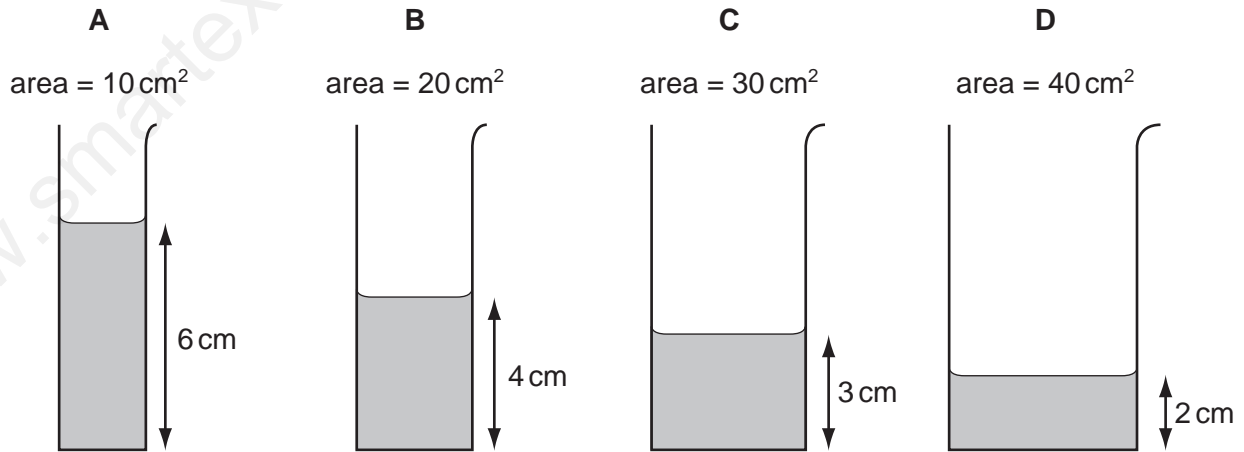


DENSITY-MASS-VOLUME-SET-3-QP

- 1** Some water is poured into four tubes of different cross-sectional areas.
Which tube contains the largest volume of water?



- 2** What are the correct units for force and for weight?

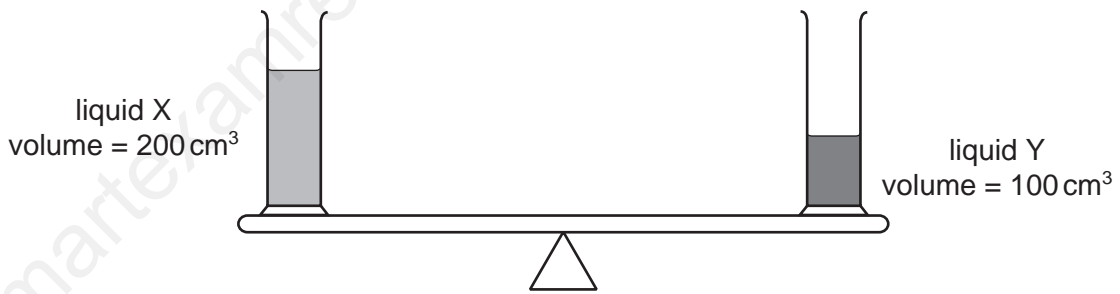
	force	weight
A	kg	kg
B	kg	N
C	N	kg
D	N	N

- 3** A metal drum has a mass of 200 kg when empty and 1000 kg when filled with 1.0 m^3 of methylated spirit.

What is the density of methylated spirit?

- A** 0.0050 kg/m^3
- B** 0.11 kg/m^3
- C** 800 kg/m^3
- D** 1000 kg/m^3

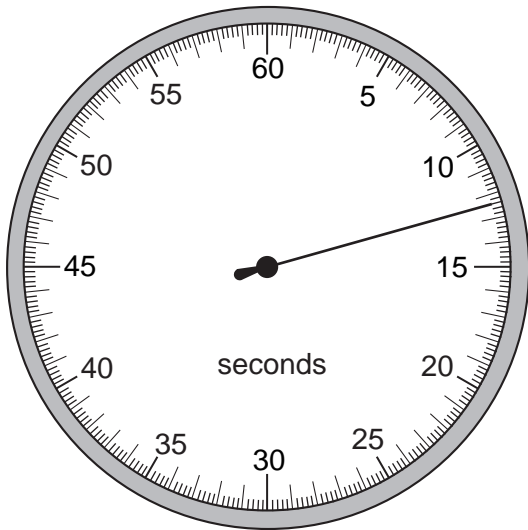
- 4** Two identical measuring cylinders containing different liquids are placed on a simple balance. They balance as shown.



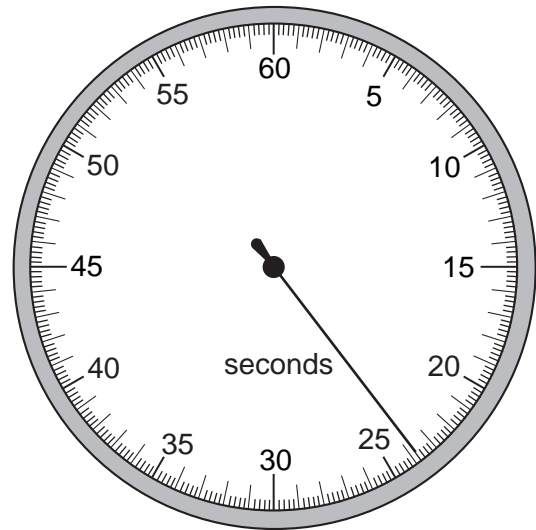
How does the density of X compare with the density of Y?

- A density of X = $\frac{1}{2}$ × density of Y
- B density of X = density of Y
- C density of X = 2 × density of Y
- D density of X = 4 × density of Y

- 5** A stopwatch is used to time an athlete running 100 m. The timekeeper forgets to reset the watch to zero before using it to time another athlete running 100 m.



stopwatch at
end of first
athlete's run



stopwatch at
end of second
athlete's run

How long does the second athlete take to run 100 m?

- A 11.2 s
- B 11.4 s
- C 12.4 s
- D 23.8 s

6

Which property of a body can be measured in newtons?

- A density
- B mass
- C volume
- D weight

7

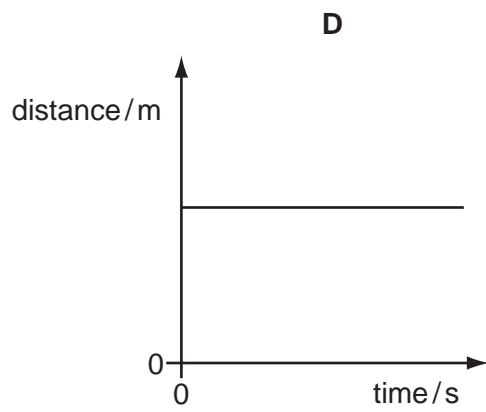
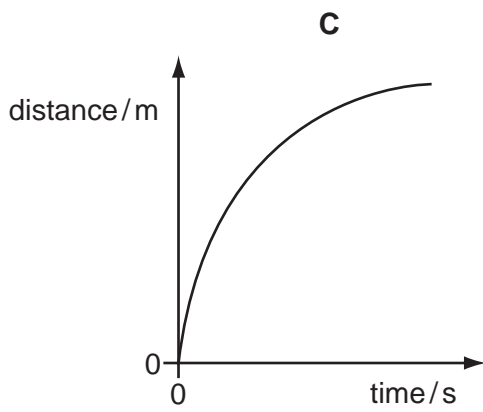
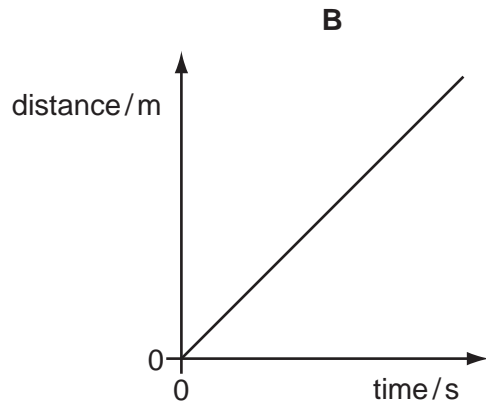
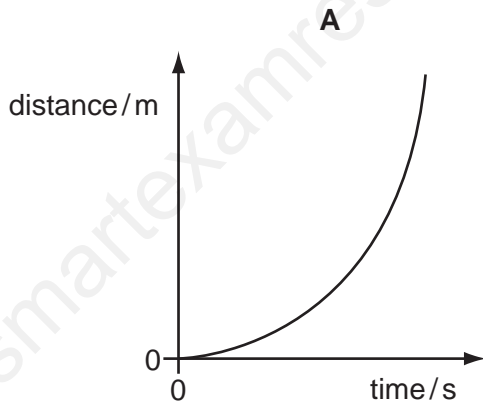
Which of the following is a unit of density?

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

8

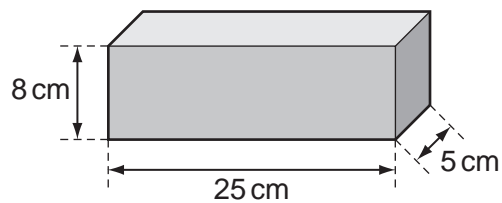
The following are distance/time graphs.

Which graph shows an object travelling at constant speed?



9

A solid, rectangular metal block has the dimensions shown.



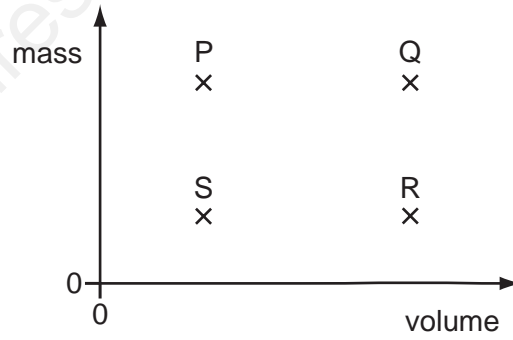
The mass of the block is 2700 g.

What is the density of the metal?

- A** $\frac{2700}{25 \times 5} \text{ g/cm}^3$
- B** $\frac{25 \times 5}{2700} \text{ g/cm}^3$
- C** $\frac{2700}{25 \times 5 \times 8} \text{ g/cm}^3$
- D** $\frac{25 \times 5 \times 8}{2700} \text{ g/cm}^3$

10

The diagram shows a graph with values of mass against volume for four different objects P, Q, R and S.



Which two objects have the same density?

- A** P and Q **B** P and R **C** R and S **D** S and Q