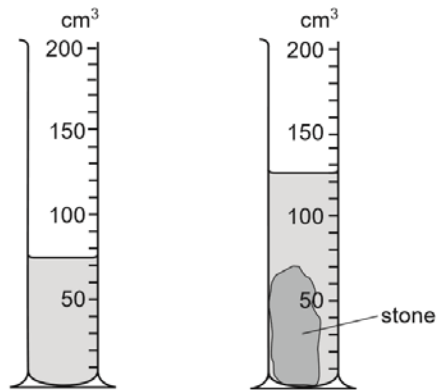


33.

A measuring cylinder contains some water. When a stone is put in the water, the level rises.



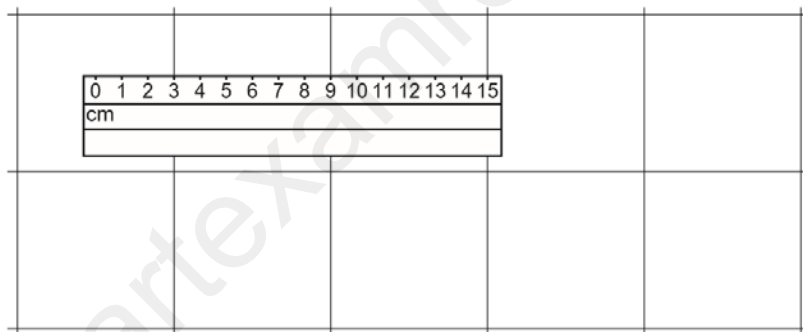
What is the volume of the stone?

- A** 50 cm³ **B** 70 cm³ **C** 75 cm³ **D** 125 cm³

Ans:

34.

A floor is covered with square tiles. The diagram shows a ruler on the tiles.



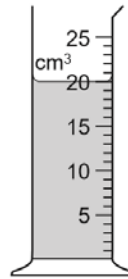
How long is one tile?

- A** 3 cm **B** 6 cm **C** 9 cm **D** 12 cm

Ans:

35.

The diagram shows some liquid in a measuring cylinder. The mass of the liquid is 16 g.



What is the density of the liquid?

- A 320g/cm³ B 36g/cm³ C 1.25g/cm³ D 0.8g/cm³

Ans:

36.

A metal drum has a mass of 200 kg when empty and 1000 kg when filled with 1.0 m³ of methylated spirit.

What is the density of methylated spirit?

- A 0.0050 kg/m³
B 0.11 kg/m³
C 800 kg/m³
D 1000 kg/m³

Ans:

37.

What are the correct units for force and for weight?

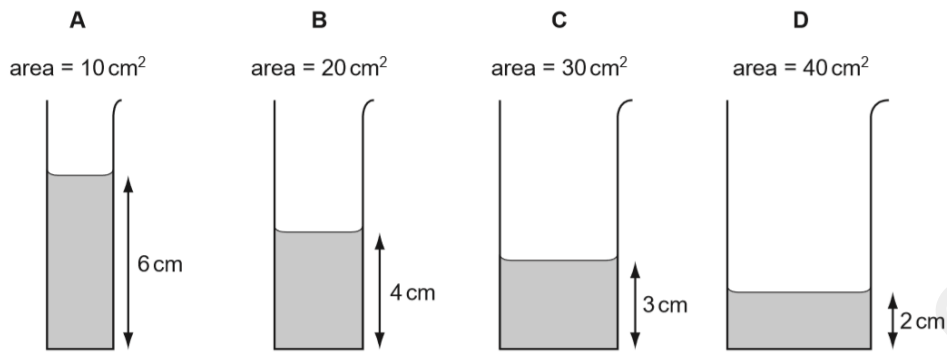
	force	weight
A	kg	kg
B	kg	N
C	N	kg
D	N	N

Ans:

38.

Some water is poured into four tubes of different cross-sectional areas.

Which tube contains the largest volume of water?

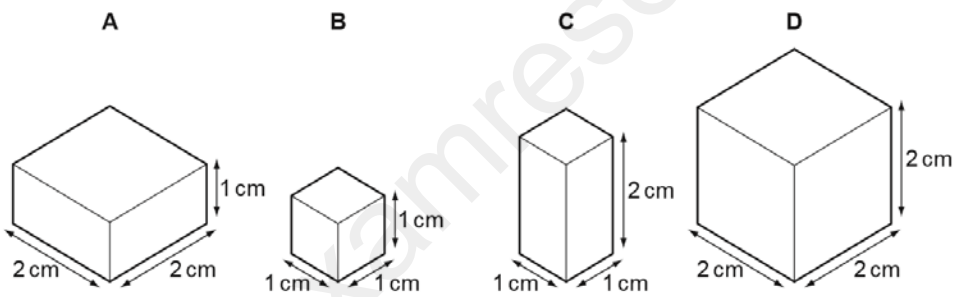


Ans:

39.

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

Which solid has the greatest density?



Ans:

40.

Which of the following is a unit of density?

A cm³/g

B g/cm²

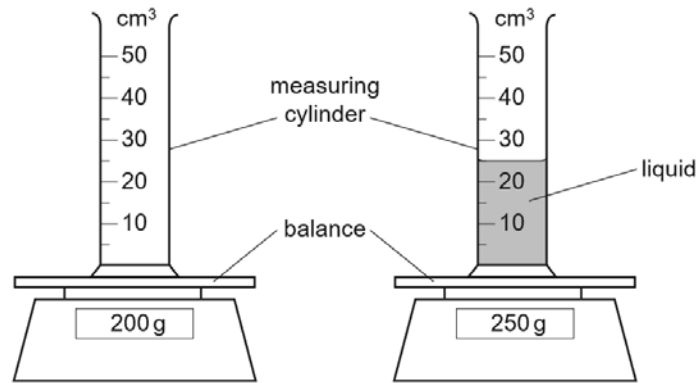
C g/cm³

D kg/m²

Ans:

41.

The diagram shows an experiment to find the density of a liquid.



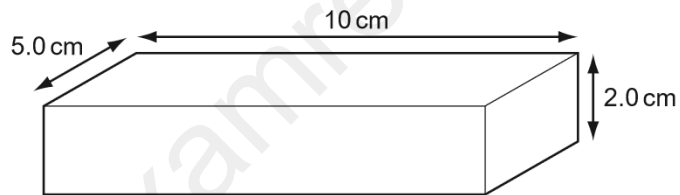
What is the density of the liquid?

- A** 0.5g/cm³ **B** 2.0g/cm³ **C** 8.0g/cm³ **D** 10.0g/cm³

Ans:

42.

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?

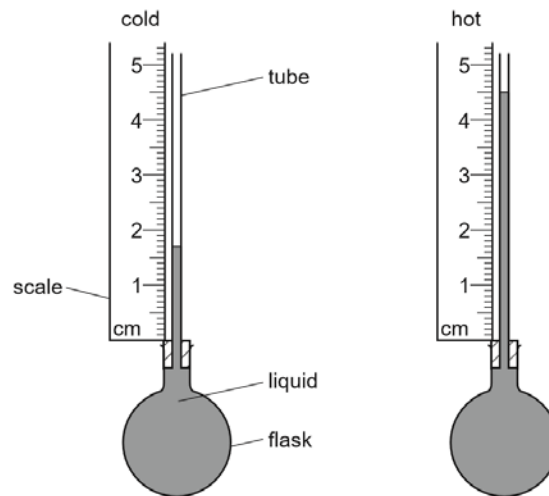
- A** 0.20g/cm³ **B** 0.40g/cm³ **C** 2.5g/cm³ **D** 5.0g/cm³

Ans:

43.

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?

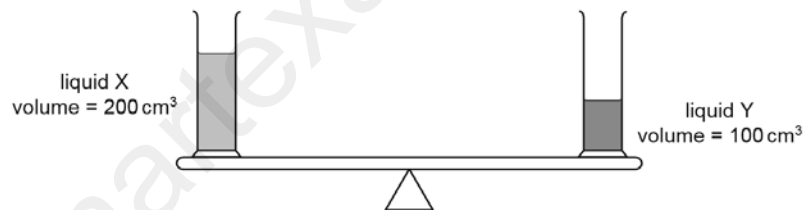
- A** 1.7 cm **B** 2.8 cm **C** 3.2 cm **D** 4.5 cm

Ans:

44.

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

Ans:

45.

Two digital stopwatches X and Y, which record in minutes and seconds, are used to time a race.

The readings of the two stopwatches, at the start and at the end of the race, are shown.

	start	end
X	00:00	00:40

	start	end
Y	01:30	02:20

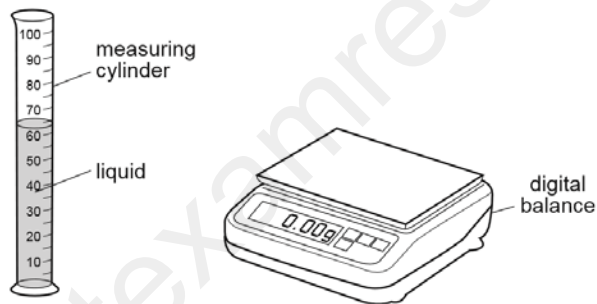
Which statement about the time of the race is correct?

- A Both stopwatches recorded the same time interval.
- B Stopwatch X recorded 10 s longer than stopwatch Y.
- C Stopwatch Y recorded 10 s longer than stopwatch X.
- D Stopwatch Y recorded 50 s longer than stopwatch X.

Ans:

46.

A student pours liquid into a measuring cylinder.



The student records the volume of the liquid from the scale on the measuring cylinder. He then puts the measuring cylinder containing the liquid on a balance and records the mass.

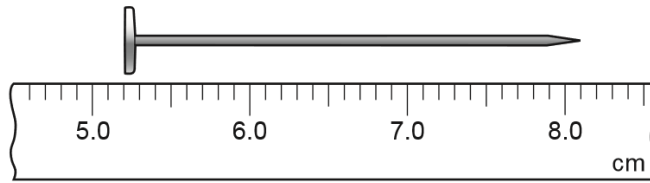
What else needs to be measured before the density of the liquid can be calculated?

- A the depth of the liquid in the measuring cylinder
- B the mass of the empty measuring cylinder
- C the temperature of the liquid in the measuring cylinder
- D the volume of the empty measuring cylinder

Ans:

47.

A ruler is used to measure the length of a nail.



What is the length of the nail?

- A** 1.3 cm **B** 2.9 cm **C** 5.2 cm **D** 8.1 cm

Ans:

