

Question 1

A student has a measuring cylinder containing water and also has a balance.

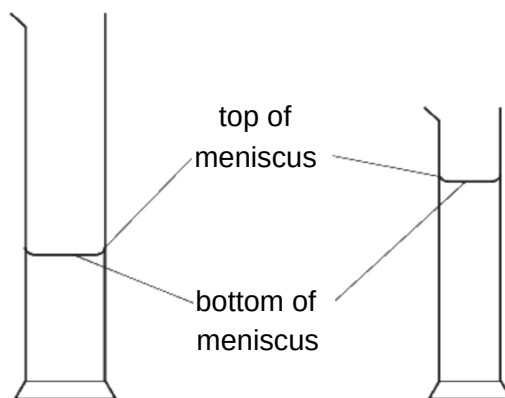
Which of these could she use to find the volume of a small metal sphere?

She has no other apparatus.

- A** either the measuring cylinder containing water or the balance
- B** the measuring cylinder containing water only
- C** the balance only
- D** neither the measuring cylinder nor the balance

Question 2

A student wishes to measure accurately the volume of approximately 40 cm^3 of water. She has two measuring cylinders, a larger one that can hold 100 cm^3 , and a smaller one that can hold 50 cm^3 . The water forms a meniscus where it touches the glass.



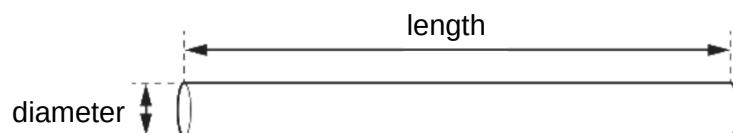
Which cylinder and which water level does the student use to ensure an accurate result?

	cylinder	water level
A	larger one	bottom of meniscus
B	larger one	top of meniscus
C	smaller one	bottom of meniscus
D	smaller one	top of meniscus

Question 3

A piece of modelling clay is rolled into the shape of a cylinder.

The dimensions shown are approximate.



Which apparatus is used to determine the volume of the cylinder?

- A a protractor
- B a ruler**
- C a syringe
- D a stopwatch

Question 4

Which measuring devices are most suitable to determine the volume of about 200 ml of liquid and the diameter of a thin wire?

	volume of about 200 ml of liquid	diameter of a thin wire
A	measuring cylinder	micrometer screw gauge
B	measuring cylinder	ruler
C	ruler	measuring cylinder
D	ruler	micrometer screw gauge

Question 5

A small bottle has a mass of 20 g when empty. The volume of the bottle is 10 cm³.

When full of liquid, the total mass is 150 g.

What is the density of the liquid?

- A** 0.50 g / cm³
- B** 2.0 g / cm³
- C** 13 g / cm³
- D** 15 g / cm³

Question 6

Which instrument is most suitable to determine the volume of a small irregularly shaped stone?

- A** 30 cm ruler
- B** digital timer
- C** measuring cylinder
- D** tape measure

Question 7

Samples of three different liquids have equal masses.

The volumes of the samples are 190 cm^3 , 200 cm^3 and 235 cm^3 .

The liquids are poured into a large measuring cylinder and the liquids form three separate layers because they do not mix.

What are the readings on the measuring cylinder at the two boundaries between the samples?

- A** 190 cm^3 and 390 cm^3
- B** 190 cm^3 and 425 cm^3
- C** 235 cm^3 and 425 cm^3
- D** 235 cm^3 and 435 cm^3

Question 8

Diagram 1 shows a solid, rectangular-sided block.

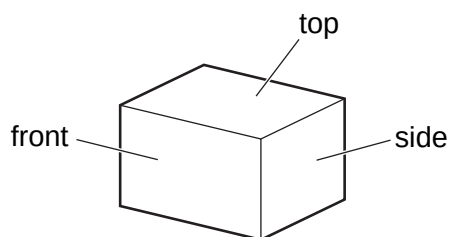


diagram 1

Diagram 2 shows the same block from the front and from the side.

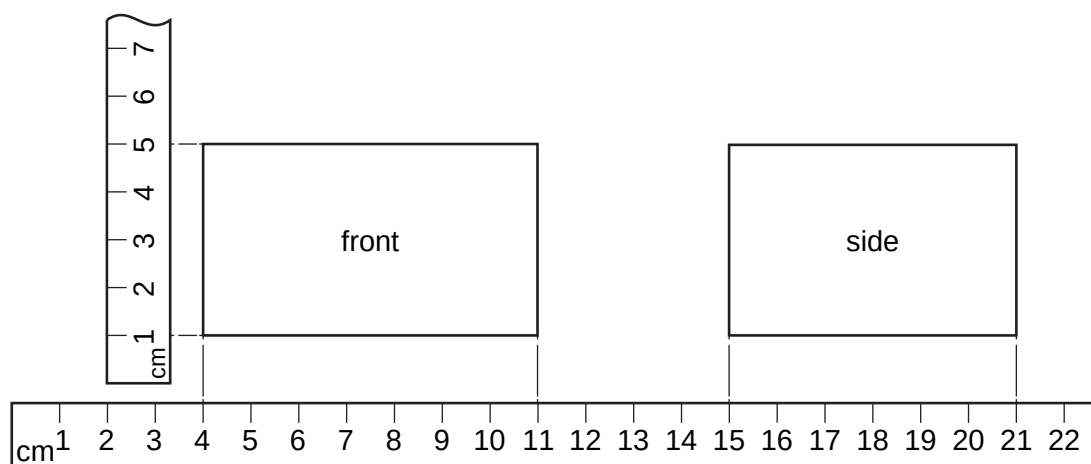


diagram 2

Metre rules have been shown close to the edges of the block.

What is the volume of the block?

- A** 120 cm³ **B** 168 cm³ **C** 264 cm³ **D** 1155 cm³