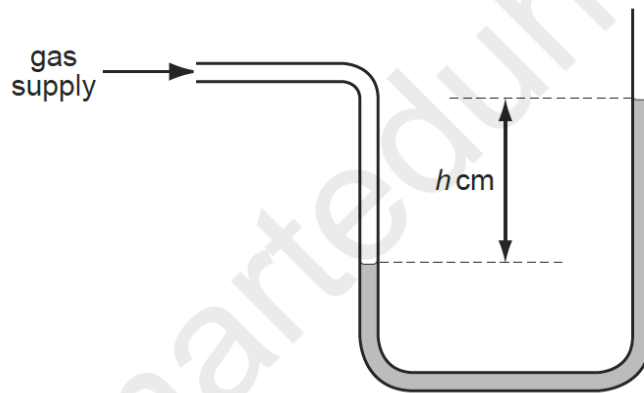


MANOMETERS-SET-1

1

A water manometer is used to measure the pressure of a gas supply to a house. It gives a reading of h cm of water.

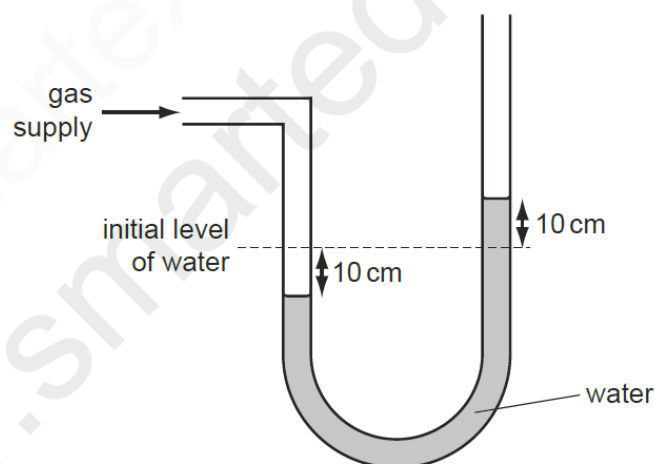


Why is it better to use water rather than mercury in this manometer?

- A h would be too large if mercury were used.
- B h would be too small if mercury were used.
- C The tube would need to be narrower if mercury were used.
- D The tube would need to be wider if mercury were used.

2

A water manometer is used to measure the pressure of a gas supply.



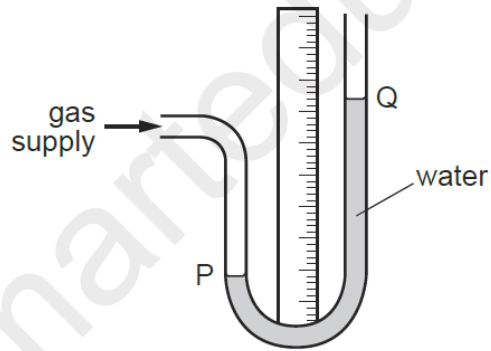
When it is attached to the gas supply, the water falls on the left side and rises on the right side. The difference in the levels of water on the two sides is now 20 cm.

What is the pressure of the gas supply?

- A the pressure due to 10 cm depth of water
- B the pressure due to 20 cm depth of water
- C the pressure due to 10 cm depth of water plus atmospheric pressure
- the pressure due to 20 cm depth of water plus atmospheric pressure

3

A water manometer is connected to a gas supply.



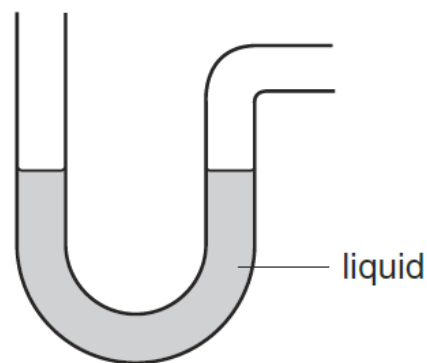
There is a gas leak and the pressure of the gas supply falls.

What happens to the water level at P and what happens to the water level at Q?

	water level at P	water level at Q
A	falls	falls
B	falls	rises
<input checked="" type="checkbox"/> C	rises	falls
D	rises	rises

4

The diagram shows an instrument used to measure gas pressure.

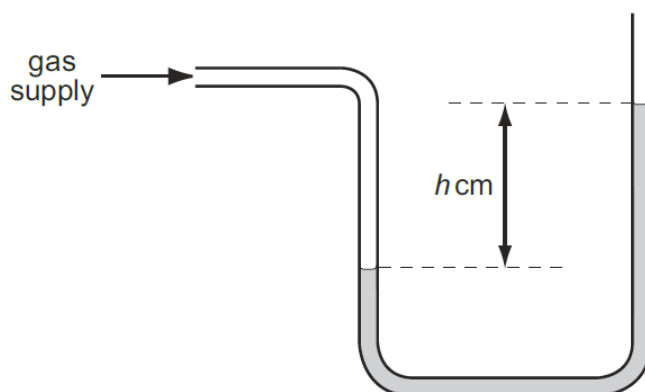


What is the instrument called?

- A** ammeter
- B** barometer
- C** manometer
- D** thermometer

5

A water manometer is used to measure the pressure of a gas supply to a house. It gives a reading of h cm of water.



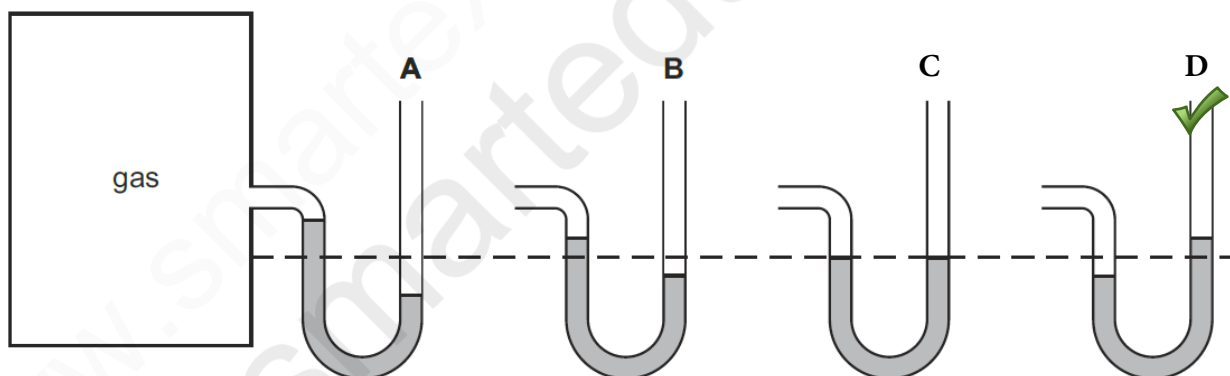
Why is it better to use water rather than mercury in this manometer?

- A h would be too large if mercury were used.
- B h would be too small if mercury were used.
- C The tube would need to be narrower if mercury were used.
- D The tube would need to be wider if mercury were used.

6

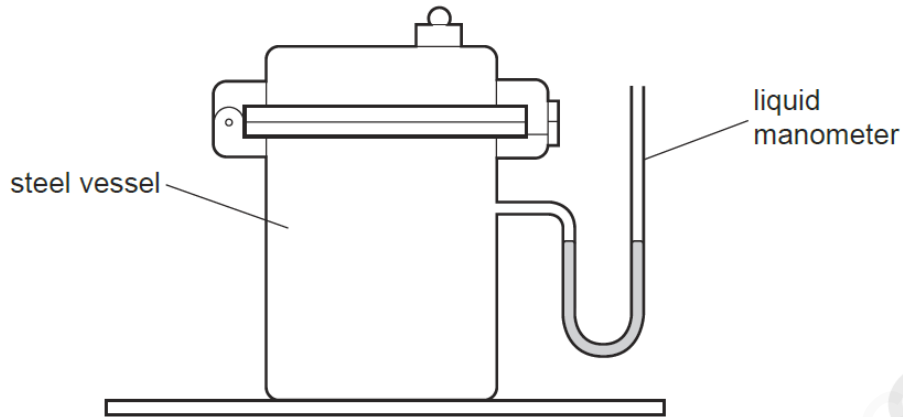
A manometer is being used to measure the pressure of the gas inside a tank. **A**, **B**, **C** and **D** show the manometer at different times.

At which time is the gas pressure inside the tank greatest?



7

A manometer is used to indicate the pressure in a steel vessel, as shown in the diagram.

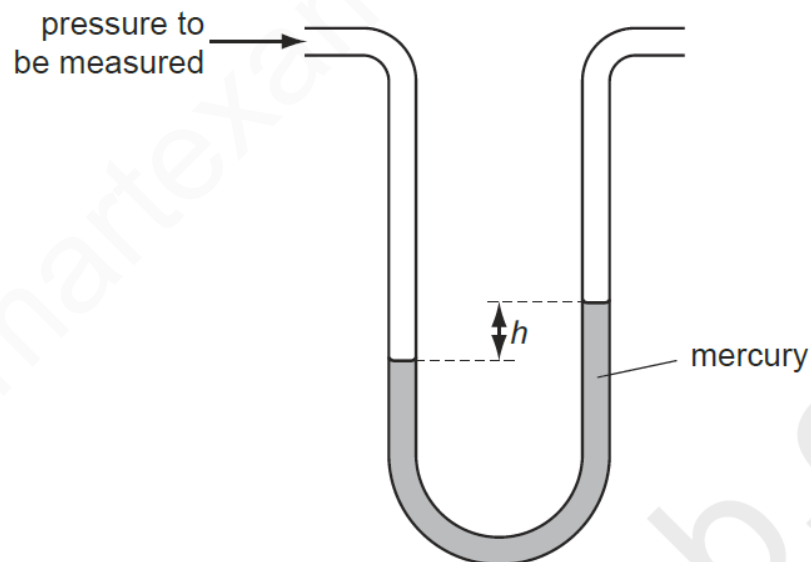


What value does the liquid manometer give for the pressure in the vessel?

- A It is zero.
- B It is between zero and atmospheric pressure.
- C It is equal to atmospheric pressure.
- D It is greater than atmospheric pressure.

8

The pressure of a gas is measured using a manometer as shown in the diagram



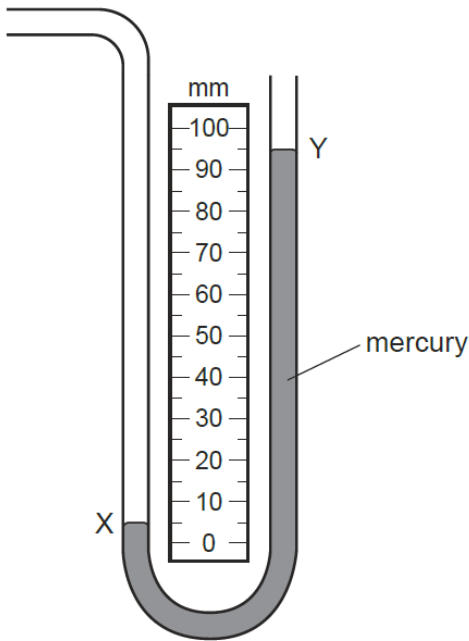
The mercury in the manometer is replaced with a liquid which is less dense.

How does the value of h change?

- A It becomes zero.
- B It decreases, but not to zero.
- C It stays the same.
- D It increases.

9

A mercury manometer is used to measure a pressure difference. The difference is shown by the levels X and Y in the diagram.

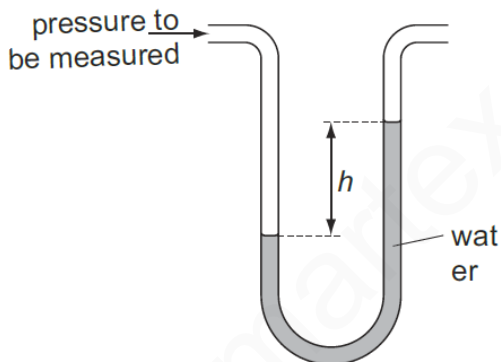


What is the pressure difference represented by X and Y?

- A 5 mm of mercury
- B 50 mm of mercury
- C 90 mm of mercury
- D 95 mm of mercury

10

A pressure is measured using a manometer as shown in the diagram.



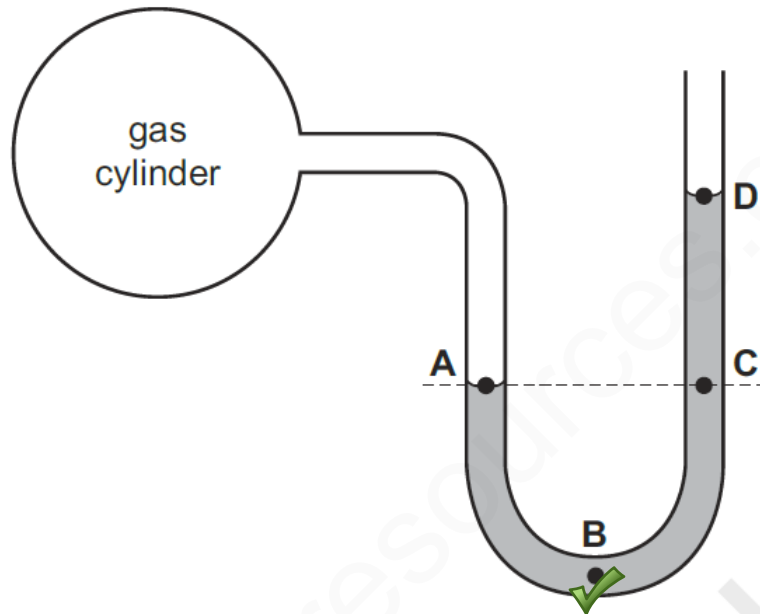
The water in the manometer is replaced with a liquid which is more dense. How does the value of h change?

- A It becomes zero.
- B It decreases, but not to zero.
- C It stays the same.
- D It increases.

11

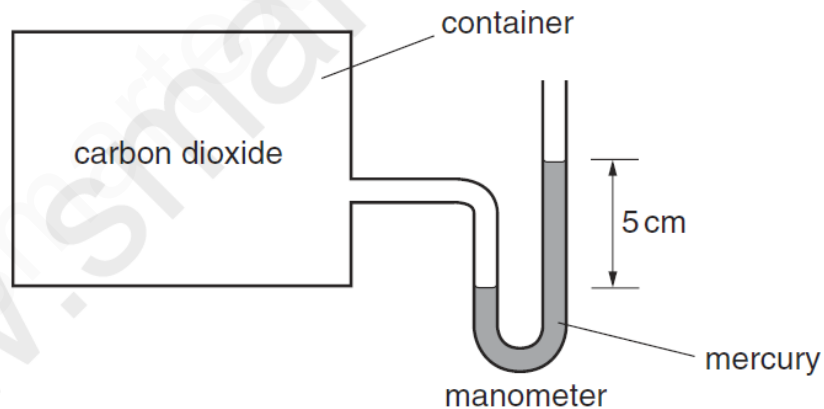
A manometer is used to measure the pressure of a gas trapped in a cylinder.

At which labelled point on the diagram is the pressure greatest?



12

The diagram shows a manometer connected to a container of carbon dioxide.



Which statement correctly describes the pressure exerted by the carbon dioxide?

- A** It is equal to the atmospheric pressure.
- B** It is equal to 5 cm of mercury.
- C** It is equal to 5 cm of mercury above atmospheric pressure.
- D** It is equal to 5 cm of mercury below atmospheric pressure.