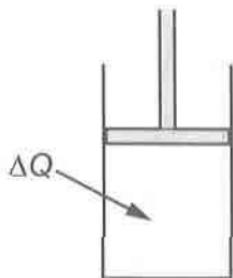
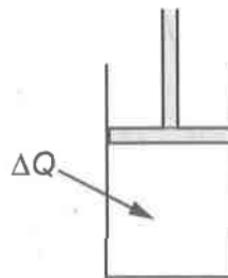


15 Two experiments are carried out using a fixed mass of gas.



experiment 1
gas at constant volume



experiment 2
gas at constant pressure

In experiment 1, an amount of heat energy ΔQ is supplied to a fixed mass of gas at constant volume. In experiment 2, the same amount of heat energy ΔQ is supplied to the same mass of gas at constant pressure.

Which statement about these two experiments is correct?

- A The work done by the gas in experiment 1 is greater than ΔQ .
- B The increase in internal energy of the gas in experiment 1 is equal to ΔQ .
- C The work done by the gas in experiment 2 is greater than ΔQ .
- D The increase in internal energy of the gas in experiment 2 is equal to ΔQ .