

- 12** The density of argon at a pressure of 1.00×10^5 Pa and at a temperature of 300 K is 1.60 kg m^{-3} .

There are 4.35×10^{30} molecules of argon in a container.

What is the root mean square speed of argon molecules at this temperature?

- A** 216 m s^{-1}
- B** 250 m s^{-1}
- C** 306 m s^{-1}
- D** 433 m s^{-1}