

13 One mole of monatomic helium gas has mass 4.0 g.

What is the root mean square (r.m.s.) speed of a helium atom at 30 °C?

- A** 43 m s^{-1} **B** 430 m s^{-1} **C** 1400 m s^{-1} **D** $1\,900\,000 \text{ m s}^{-1}$

14 A sample of air contains N molecules. The mean random kinetic energy per molecule is E .