

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 $1900\ 000 \text{ m s}^{-1}$

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