

- 14** The density of argon at a pressure of  $1.00 \times 10^5$  Pa and at a temperature of 300 K is  $1.60 \text{ kg m}^{-3}$ .

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

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