

- 14 In the derivation of the relationship $\rho V = \frac{1}{3} N m \langle c^2 \rangle$, where N is the number of gas molecules, which statement is **not** an essential assumption?
- A The average kinetic energy of a molecule is proportional to the temperature of the gas.
- B The volume of molecules is negligible compared with the volume occupied by the gas.
- C The molecules exert no intermolecular forces on one another except during collisions.
- D The molecules are in continuous random motion.