

- 18 In deriving the equation $p = \frac{1}{3} \rho \langle c^2 \rangle$ using the kinetic theory of gases, which of the following is **not** a valid assumption?

- A The volume of the molecules is negligible compared with the volume of the gas.
- B The duration of a collision is negligible compared with the time between collisions.
- C The molecules experience negligible change of momentum on collision with the walls of the container.
- D Collisions with the walls of the container and with other molecules cause no change in the average kinetic energy of the molecules.