

- 11** A gas molecule of mass m moves with velocity v and collides elastically with a wall perpendicular to that direction.

If the molecule makes N such collisions per second with the wall, what is the average force F exerted by the molecule on the wall?

A $F = mvN$

B $F = 2mvN$

C $F = \frac{mv^2}{2}$

D $F = \frac{mv}{N}$