

- 15** In a mixture of two monatomic ideal gaseous X and Y, the molecules of Y have thrice the mass of those of X. The mixture is in thermal equilibrium and the molecules of Y have a mean translational kinetic energy of  $E_K$ .

What is the mean translational kinetic energy of the molecules of X?

**A**  $\frac{1}{3} E_K$

**B**  $\frac{1}{2} E_K$

**C**  $E_K$

**D**  $3 E_K$