

- 2 A cylinder contains a mixture of gas X and gas Y. The mean kinetic energy of the molecules of gas X is E_X and the mean kinetic energy of the molecules of gas Y is E_Y .

The molecules of gas X have twice the mass of the molecules of gas Y.

Which of the following equations is correct?

☐ **A** $E_X = \frac{1}{2} E_Y$

☐ **B** $E_X = E_Y$

☐ **C** $E_X = 2E_Y$

☐ **D** $E_X = 4E_Y$

(Total for Question 2 = 1 mark)