

- 3 A closed container holds a mixture of two gases at a constant temperature. Each molecule of gas X has a mass four times that of each molecule of gas Y.

What is the ratio $\frac{\text{r.m.s.velocity of molecules in gas X}}{\text{r.m.s.velocity of molecules in gas Y}}$?

☐ A $\frac{1}{4}$

☐ B $\frac{1}{2}$

☐ C 2

☐ D 4

(Total for Question 3 = 1 mark)