

Previous year JEE questions 12

Equal weights of methane and hydrogen are mixed in an empty container at 25°C. The fraction of the total pressure exerted by hydrogen is : *(1984 - 1 Mark)*

(a) $\frac{1}{2}$ (b) $\frac{8}{9}$

(c) $\frac{1}{9}$ (d) $\frac{16}{17}$

- (b) Pressure exerted by hydrogen will be proportional to its mole fraction.

$$\text{Mole fraction of H}_2 = \frac{\frac{w}{2}}{\frac{w}{16} + \frac{w}{2}} = \frac{8}{9}$$