Previous year JEE questions 17

Equal weights of ethane and hydrogen are mixed in an empty container at 25°C. The fraction of the total pressure exerted by hydrogen is   *(1993 - 1 Mark)*

(a) 1 : 2

(b) 1 : 1

(c) 1 : 16

(d) 15 : 16

(d) Pressure exerted by H_2 is proportional to its mole fraction.

$$\text{Mole fraction of } H_2 = \frac{\dfrac{W}{2}}{\dfrac{W}{2} + \dfrac{W}{30}} = \frac{30}{32} = \frac{15}{16}$$