**Task:**

Hydrogen bromide is farmed by a reaction between hydrogen gas and bromine vapour, according to the following equation
H2(g) + Br2(g) - 2HBr(g) Keq=3.5
calculate the equillibrium concentrations of all gases if 0.40 moles of H2(g) and 0.60 moles of Br2(g)
are placed in a 4.0L container

**Answer:**

$H_2(g) + Br_2(g) = 2HBr(g)$

| | $H_2$ | $Br_2$ | 2HBr |
|---|---|---|---|
| Before | 0.4 moles | 0.6 moles | 0 moles |
| | Limiting reagent | | |
| Equilibrium | 0 moles | 0.2 moles | 0.8 moles |
| Concentration (M) | 0 | 0.2/4=0.05 | 0.8/ 4 = 0.2 |

For concentration is used formula C = n(moles) / V(L)

Answer:

$C(H_2) = 0$ M

$C(Br_2) = 0.05$M

C(HBr) = 0.2 M