$$K = \frac{[P]}{[R]}$$

$K >> 1$ $\quad \frac{5}{1} \quad \frac{[P]}{[R]}$ ← lots → forward

$K << 1$ $\quad \frac{1}{10,000} \quad \frac{[P]}{[R]}$ ← big ← favors R.

Feb 13-9:55 AM

$$\text{React} \underset{K_r}{\overset{K_f}{\rightleftharpoons}} \text{Prod}$$

$$K_f = \frac{[\text{Prod}]}{[\text{React}]} \qquad K_r = \frac{[\text{React}]}{[\text{Prod}]}$$

$$\frac{K_f}{1} = \frac{1}{K_r}$$

Feb 13-10:02 AM

Diff between

"one power of math more"

ΔH	Hess's Law	K
Change sign (negate)	Flip Eqn	$\frac{1}{K}$ Take inverse
Add ΔH $\Delta H_1 + \Delta H_2$	Add Eqns	Mult. $K_1 * K_2$
Double ΔH	Double Eqn	K^2
$\frac{1}{2}(\Delta H)$	$\frac{1}{2}$ Eqn	$K^{1/2}$ or $\sqrt{K}$

Feb 13-10:04 AM

(Keq) $\frac{K_c}{1} = \frac{[P]^{coeff}}{[R]^{coeff}}$ | $\frac{K_p}{1} = \frac{P_{prod}^{coeff}}{P_{react}^{coeff}}$

Molarity | Atm = Pressure

$$PV = nRT$$

$$P = \frac{n}{V} RT$$ GAS

$$P = MRT$$ $\left[\Sigma \text{ moles Prod} - \Sigma \text{ mole react}\right]$

$$K_p = K_c (RT)^{\Delta n}$$

$$K_c = K_p (RT)^{-\Delta n} = \frac{K_p}{(RT)^{\Delta n}}$$

Feb 13-10:11 AM

Rxn	$2SO_{3(g)}$	$\rightleftharpoons$ $2SO_{2(g)}$	$+ O_{2(g)}$
Initial	6.09×10^{-3} M	0	0
Change	-3.65×10^{-3}	$+3.65\times10^{-3}$	$+\frac{1}{2}(3.65\times10^{-3})$ MOLE RATIO
Equilib	2.44×10^{-3} M		

Feb 13-10:17 AM

15/22 + 32

Feb 13-10:21 AM