

$$\ln x = y$$

$$\Downarrow$$

$$x = e^y$$

$$e = 2.71 \dots$$

$$\ln K_2 = \ln K_1 - \frac{\Delta H}{R} \left(\frac{1}{T_2} - \frac{1}{T_1} \right)$$

$$\ln(x) = x$$

$$K_2 = e^{\left(\ln K_1 - \frac{\Delta H}{R} \left(\frac{1}{T_2} - \frac{1}{T_1} \right) \right)}$$

$$K_2 = K_1 \cdot e^{\left(-\frac{\Delta H}{R} \left(\frac{1}{T_2} - \frac{1}{T_1} \right) \right)}$$

$$\ln(x) + \ln(y) = \ln(x \cdot y)$$

$$\ln(x) - \ln(y) = \ln\left(\frac{x}{y}\right)$$

$$\ln(x) > 0 \quad x > 1$$

$$\ln(x) < 0 \quad 0 < x < 1$$

$$\ln \frac{K_2}{K_1} = \frac{-\Delta H}{R} \left(\frac{1}{T_2} - \frac{1}{T_1} \right)$$

$$\frac{K_2}{K_1} = 3$$