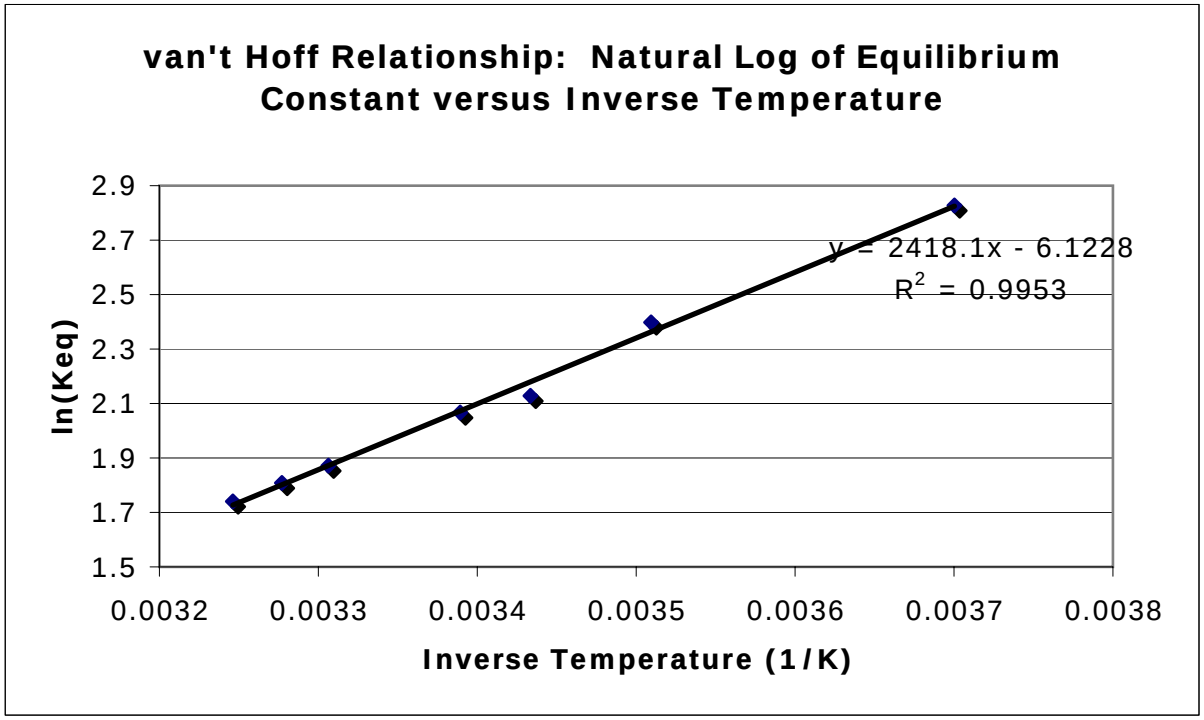
Project: Temperature Effect on the Equilibrium Constant (K_{eq}) for a Reaction of A in Equilibrium with B

Experimental Data:

temp (°C)	K_{eq}	Temp (K)	Inverse K (1/K)	Natural Logarithm of Keq (lnKeq)
-2.9	16.9	270.25	0.003700278	2.827313622
11.8	11	284.95	0.003509388	2.397895273
18.1	8.4	291.25	0.003433476	2.128231706
21.9	7.9	295.05	0.003389256	2.066862759
29.3	6.5	302.45	0.003306332	1.871802177
32	6.1	305.15	0.003277077	1.808288771
34.9	5.7	308.05	0.003246226	1.740466175

Basic steps in analyzing the data:

1. Convert temperatures in °C to K (i.e., add 273.15).
2. Take the inverse of the absolute temperature.
3. Take the natural logarithm of Keq
4. Plot the resulting data points in an XY scattergram.
5. Create a trendline to find the slope and y-intercept.



From the Graph slope = $-\Delta H/R = 2418.1$

y-intecept = -6.1228