

Solutions

Each answer shows the steps, then the **result**.

2.1

- $\Delta G^\circ = -RT \ln K$

2.2

- Greater than 1

2.3

- $K = 1$

3.1 B

- positive

3.2

(a)

- Positive

(b)

- $\Delta G^\circ = -(8.314)(298)(-6.9) = +17\,100 \text{ J} \approx +17 \text{ kJ}$

3.3

- $\Delta G^\circ = -RT \ln K$: a more negative ΔG° requires a larger $\ln K$, hence a larger K — the equilibrium lies further toward products