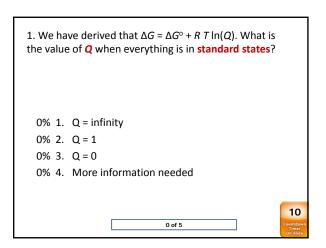
Thermodynamics of equilibrium General Chemistry, CH102 Spring 2011



2. We have derived that $\Delta G = \Delta G^{\circ} + R \ T \ln(Q)$. What is the value of ΔG when everything is in standard states?

0% 1. $\Delta G = 0$ 0% 2. $\Delta G = 1$ 0% 3. $\Delta G = \Delta G^{\circ}$ 0% 4. More information needed

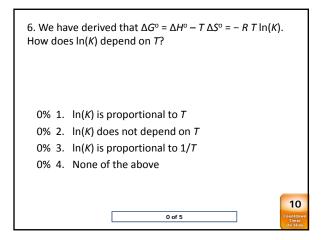
3. We have derived that $\Delta G = \Delta G^\circ + R \ T \ln(Q)$. What is the value of ΔG when Q = K?

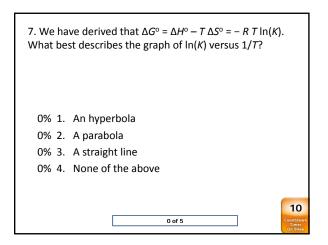
0% 1. $\Delta G = 0$ 0% 2. $\Delta G = 1$ 0% 3. $\Delta G = \Delta G^\circ$ 0% 4. More information needed

4. We have derived that $\Delta G = \Delta G^\circ + R \ T \ln(Q)$. What is the value of ΔG° when Q = K?

0% 1. $\Delta G^\circ = 0$ 0% 2. $\Delta G^\circ = 1$ 0% 3. $\Delta G^\circ = -R \ T \ln(K)$.
0% 4. More information needed

5. We have derived that $\Delta G = \Delta G^\circ + R \ T \ln(Q)$. What is the value of ΔG° when Q does not equal K? $0\% \ 1. \ \Delta G^\circ = 0$ $0\% \ 2. \ \Delta G^\circ = 1$ $0\% \ 3. \ \Delta G^\circ = -R \ T \ln(K)$. $0\% \ 4. \ \text{More information needed}$





8. The graph of ln(K) versus 1/T is a straight line. What is the slope of the graph of ln(K) versus 1/T?

0% 1. 1
0% 2. +ΔH°/R
0% 3. -ΔH°/R
0% 4. 0 (horizontal line)

8. The graph of ln(K) versus 1/T is a straight line. What is the value of ln(K) at infinite T?
0% 1. 0
0% 2. 1
0% 3. ΔS°/R
0% 4. infinite
0% 5. None of the above

8. The value of ln(K) at infinite T? is ΔS°/R. Why does the value of ln(K) at infinite T not depend on ΔH°?
0% 1. Reactions result in zero entropy in the surroundings when T = infinity.
0% 2. Reactions result in zero entropy change in the surroundings when T = infinity.
0% 3. Reactions result in zero entropy in the system when T = infinity.
0% 4. Reactions result in zero entropy in the system when T = infinity.
0% 5. Both 2 and 4