We have derived that \( dG = dG_0 + RT \ln(Q) \). What is the value of \( Q \) when everything is in standard states?

A. \( Q = \infty \)
B. \( Q = 1 \)
C. \( Q = 0 \)
D. More information needed

We have derived that \( dG = dG_0 + RT \ln(Q) \). What is the value of \( dG \) when everything is in standard states?

A. \( dG = 0 \)
B. \( dG = 1 \)
C. \( dG = dG_0 \)
D. More information needed

We have derived that \( dG = dG_0 + RT \ln(Q) \). What is the value of \( dG \) when \( Q = K \)?

A. \( dG = 0 \)
B. \( dG = 1 \)
C. \( dG = dG_0 \)
D. More information needed

We have derived that \( dG = dG_0 + RT \ln(Q) \). What is the value of \( dG_0 \) when \( Q = K \)?

A. \( dG_0 = 0 \)
B. \( dG_0 = 1 \)
C. \( dG_0 = -RT \ln(K) \)
D. More information is needed

We have derived that \( dG = dG_0 + RT \ln(Q) \). What is the value of \( dG_0 \) when \( Q \) does not equal \( K \)?

A. \( dG_0 = 0 \)
B. \( dG_0 = 1 \)
C. \( dG_0 = -RT \ln(K) \)
D. More information is needed

We have derived that \( dG_0 = dH_0 - TdS_0 = -RT \ln(K) \). How does \( \ln(K) \) depend on \( T \)?

A. \( \ln(K) \) is proportional to \( T \)
B. \( \ln(K) \) is independent of \( T \)
C. \( \ln(K) \) is proportional to \( 1/T \)
D. None of the above
7. We have derived that \(dG_0 = dH_0 - TdS_0 = -RT \ln(K)\). What best describes the graph of \(\ln(K)\) versus \(1/T\)?

A. An hyperbola  
B. A parabola  
C. A straight line  
D. None of the above

8. We have derived that \(dG_0 = dH_0 - TdS_0 = -RT \ln(K)\). What is the slope of the graph of \(\ln(K)\) versus \(1/T\)?

A. 1  
B. \(\frac{dH_0}{R}\)  
C. \(-\frac{dH_0}{R}\)  
D. 0 (horizontal line)

9. We have derived that \(dG_0 = dH_0 - TdS_0 = -RT \ln(K)\). What is the value of \(\ln(K)\) at infinite temperature.

A. 0  
B. \(\frac{dS_0}{R}\)  
C. infinite  
D. None of the above

10. Why does \(\ln(K)\) at infinite temperature *not* depend on \(dH_0\)?

A. Reactions result in zero entropy in the surroundings when \(T = \infty\).  
B. Reactions result in zero entropy change in the surroundings when \(T = \infty\).  
C. Reactions result in zero entropy in the system when \(T = \infty\).  
D. Reactions result in zero entropy change in the system when \(T = \infty\).