1 When T is increased, the rate of *every* chemical reaction must...
   A increase
   B stay the same
   C decrease
   D more information needed.

2 For a particular reaction at 25C, the rate law is found to be k[X][Y]2. At 50C, the rate increases because of change in ...
   A [X]
   B [Y]
   C k
   D [X], [Y], and k

3 Rate constant depends on T as k = A exp(-|Ea|/(R T)). The value of k at T = 0 is ...
   A 0
   B A
   C Ea/(R T)
   D infinity

4 Rate constant depends on T as k = A exp(-|Ea|/(R T)). The value of k at T = infinity is ...
   A 0
   B A
   C Ea/(R T)
   D infinity

5 For an elementary reaction, K = kFor/kRev. kFor and kRev both increase with T. This means as T is increased, K ...
   A increases
   B stays the same
   C decreases
   D further information needed

6 What must be true for a reaction to be endothermic?
   A kFor > kRev
   B kFor < kRev
   C Ea,For > Ea,Rev
   D Ea,For < Ea,Rev

7 What must be true so that the equilibrium constant, K = kFor/kRev, will increase with increasing T?
   A kFor > kRev
   B kFor < kRev
   C kFor increases faster than kRev
   D kFor increases slower than kRev
What must be true so that the equilibrium constant, \( K = \frac{k_{\text{For}}}{k_{\text{Rev}}} \), will increase with increasing \( T \)?

A. \( k_{\text{For}} > k_{\text{Rev}} \)
B. \( k_{\text{For}} < k_{\text{Rev}} \)
C. \( E_{\text{aFor}} > E_{\text{aRev}} \)
D. \( E_{\text{aFor}} < E_{\text{aRev}} \)