1. Chemical Equilibrium
   (a) ($\rightleftharpoons$)
   (b) rate of the forward reaction = rate of the reverse reaction
   (c) Figure 16.2
2. Le Chatelier's Principle: If a stress is applied to a system in equilibrium, the system responds in such a way as to relieve that stress and restore equilibrium under a new set of conditions.
   (a) The equilibrium is shifted to remove the stress
   (b) The system returns to a new equilibrium
   (c) The system can never fully remove the stress
3. Effect of Concentration
   (a) Increasing concentration system shifts to decrease concentration
   (b) Example
4. Effect of Temperature
   (a) Endothermic - Heat is a reactant
   (b) Exothermic - Heat is a product
   (c) Treat an increase or decrease in temperature the same as an increase or decrease in the concentration of heat.
5. Effect of Volume (or pressure):
   (a) Only affects gasses
   (b) Volume and Pressure are inversly proportional
   (c) $\downarrow$ P = $\uparrow$ V = $\downarrow$ concentration gasses
   (d) $\uparrow$ P = $\downarrow$ V = $\uparrow$ concentration of gasses
6. Effect of Catalyst
   (a) Has no effect on the equilibrium concentrations
   (b) Speeds up the rate at which equilibirum is achieved
   (c) Lowers the Activation Energy (AE)
   (d) Figure 16.3
7. Focus on the homework problems and predicting which direction a reaction will shift, and which products and reactants will increase/decrease.