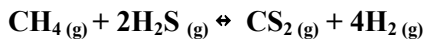


# Worksheet Le Chatelier's Principle

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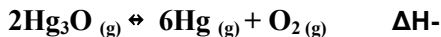
- 1) For the reaction below, which change would cause this endothermic reaction in equilibrium to shift right?



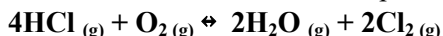
- (a) Decrease the concentration of dihydrogen monosulfide  
 (b) Increase the pressure on the system  
 (c) Increase the temperature of the system  
 (d) Increase the concentration of carbon disulfide  
 (e) Decrease the concentration of methane
- 2) What would happen to the position of equilibrium (which direction will it shift) when the following changes are made to the reaction below?



- (a) Sulfur dioxide is added to the system \_\_\_\_\_  
 (b) Sulfur trioxide is removed from the system \_\_\_\_\_  
 (c) Oxygen is added to the system \_\_\_\_\_
- 3) What would happen to the position of equilibrium when the following changes are made to the reaction below?



- (a)  $\text{Hg}_3\text{O}$  is added to the system \_\_\_\_\_  
 (b) The volume of the system decreases \_\_\_\_\_  
 (c) Temperature is increased \_\_\_\_\_
- 4) List all the "stresses" that could be applied to this equilibrium reaction, which would cause an increase in the concentration of water vapor.



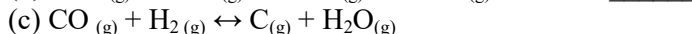
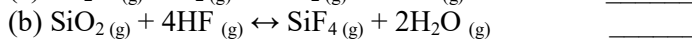
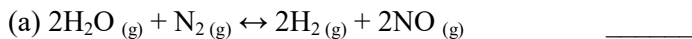
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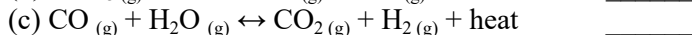
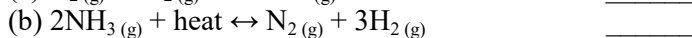
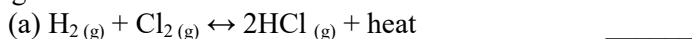
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- 5) Predict the direction of the shift caused by decreasing the volume of the container for each equilibrium reaction...



- 6) Predict the effect of decreasing the temperature on the position of equilibrium for each of the following...



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7) In general, what needs to be done to the reactants in order to increase the amount of products produced?

*Increase or Decrease?*

8) In general, what needs to be done to the products in order to reduce the amount of reactants that are formed?

*Increase or Decrease?*