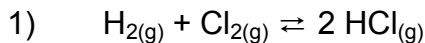
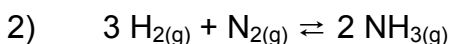


Le Châtelier's Principle

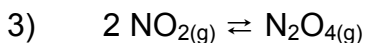
Predict the direction of the equilibrium shift for each of the following processes:



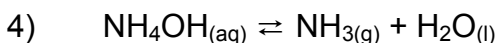
What direction will the equilibrium shift when the partial pressure of hydrogen is increased?



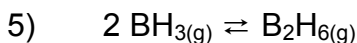
Given that this reaction is exothermic, what direction will the equilibrium shift when the temperature of the reaction is decreased?



If a large quantity of argon is added to the container in which this equilibrium is taking place, in what direction will the equilibrium shift?

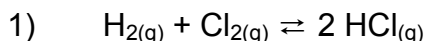


In what direction will the equilibrium shift if ammonia is removed from the container as soon as it is produced?



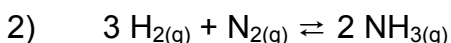
If this equilibrium is taking place in a piston with a volume of 1 L and I compress it so the final volume is 0.5 L, in what direction will the equilibrium shift?

Le Châtelier's Principle



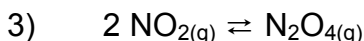
What direction will the equilibrium shift when the partial pressure of hydrogen is increased?

It will shift to the right to decrease the pressure of hydrogen.



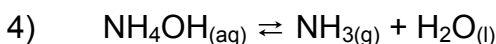
Given that this reaction is exothermic, what direction will the equilibrium shift when the temperature of the reaction is decreased?

It will shift to the right so that the heat that's being removed will be replaced.



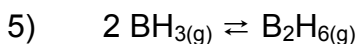
If a large quantity of argon is added to the container in which this equilibrium is taking place, in what direction will the equilibrium shift?

It won't shift, because the partial pressures of each gas will be the same.



In what direction will the equilibrium shift if ammonia is removed from the container as soon as it is produced?

It will shift to the right in an effort to increase the quantity of ammonia present.



If this equilibrium is taking place in a piston with a volume of 1 L and I compress it so the final volume is 0.5 L, in what direction will the equilibrium shift?

It will shift to the right so the volume of the gases in the equilibrium will also be decreased.