Name: _____ **Date:** _____

Chemistry *~ Ms. Hart* **Class:** Anions or Cations

7.3 – Le Chatelier - Exit Ticket

1. Consider the following equation:

   $Zn\ (s) + HCl\ (aq) \rightarrow ZnCl_2\ (aq) + H_2\ (g)$

   What will happen to the concentration of each product or reactant if $ZnCl_2$ is added to the system at equilibrium? **Place a + if the concentration will increase and a – if the concentration will decrease.**

2. Given the system at equilibrium:

   $2POCl_3(g) + \text{energy} \rightleftharpoons 2PCl_3(g) + O_2(g)$

   Which changes occur when $O_2(g)$ is added to this system?
   (1) The equilibrium shifts to the right and the concentration of PCl_3 (g) increases.
   (2) The equilibrium shifts to the right and the concentration of PCl_3 (g) decreases.
   (3) The equilibrium shifts to the left and the concentration of PCl_3 (g) increases.
   (4) The equilibrium shifts to the left and the concentration of PCl_3 (g) decreases.

3. Given the reaction at equilibrium:

   $N_2(g) + O_2(g) + \text{energy} \rightleftharpoons 2\ NO(g)$

   Which change will result in a *decrease* in the amount of NO (g) formed?
   (1) decreasing the pressure
   (2) decreasing the concentration of $N_2(g)$
   (3) increasing the concentration of O_2 (g)
   (4) increasing the temperature

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