**8.2.Reaction Rate Practice Problems**

H2 + Cl2 → 2HCl

1. If I increase the concentration of H2, how will the rate change?
2. If I decrease the pressure, how will the rate change?
3. I heat the container, how will the rate be changed?
4. I decrease the amount of Cl2, how will the rate change?
5. C6H6 + Br2 → C6H5Br + HBr

Which of the following changes will cause an increase in the rate of the above reaction?

A. Increasing the concentration of Br2

B. Decreasing the concentration of C6H6.

C. Increasing the concentration of HBr

D. Decreasing the temperature

1. I run the reaction:

C6H12O6 + 6 O2 → 6 CO2 + 6 H2O

If I begin with 0.25 M O2 and after 100 seconds the concentration is 0.12 M, then what is the rate of this reaction?

1. I run the same reaction as #2 and I begin with 0 M CO2 and after 232 seconds the concentration of CO2 is 0.75 M.
2. If you increase the pressure of a container, how is the rate of the reaction impacted?
3. What is collision theory and how is it related to rates?
4. I run the reaction:

C6H12O6 + 6 O2 → 6 CO2 + 6 H2O

If I begin with 0.52 M O2 and after 100 seconds the concentration is 0.12 M, then what is the rate of this reaction?