**Try: Activity 6.3 pg. 382**

**Reaction Mechanisms Practice**

1. Define the following terms a. Elementary Steps b. Reaction mechanism
2. Write a rate law equation for the following elementary steps
   1. Ag+(aq) + Cl-(aq) 🡪 AgCl(s)
   2. NO(g) + NO(g) 🡪 N2O2 (g)
3. The following reaction can occur between iodine fluoride and hydrogen:

2IF(g) + H2(g) 🡪 2HF(g) + I2(g)  
One of your classmates things that this is a probable one-step reaction. Explain why this is unlikely.

1. The reaction mechanism below have been proposed by a chemist working to convert chloroform to carbon tetrachloride

Step 1: Cl2 🡪 2Cl

Step 2: Cl + CHCl3 🡪 HCl + CCl3

Step 3: Cl + CCl3 🡪 CCl4

1. Write the overall equation for this reaction mechanism
2. Is there a catalyst in this reaction? Explain.
3. Identify any intermediates in this mechanism. Explain.
4. The rate law for the overall reaction is rate = k[CHCl3]. Which step would likely be the rate determining step? Explain.

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