Skill Practice 57

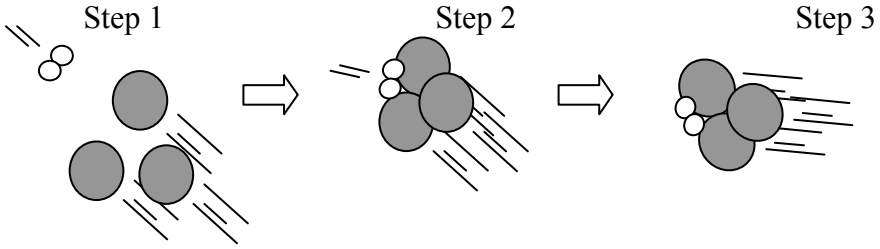
Intro Reaction Rates

Name: _____

Date: _____

Hour: _____

1. Consider the following diagram of atoms:



   a) Does the above collision have enough energy for a reaction to form? Explain.

   b) Circle the activated complex in the above diagram. Another name for activated complex is the

   _____ _____.

   c) Which of the following could be the reaction? (There could be more than one.)

   A) $CO_2 + Cl_2 \rightarrow CO_2Cl_2$ B) $N_2 + 3Ca \rightarrow Ca_3N_2$ C) $3\ O_2 + 4\ Al \rightarrow 2\ Al_2O_3$

   d) Redraw the above diagram (all three steps), but this time make it a collision that does NOT have enough energy to react:

2. Draw an energy diagram for an endothermic reaction. Clearly label the activation energy and the enthalpy change. Then explain how a catalyst would change the diagram you drew.

3. What is a catalyst?

4. Name three ways to speed up a reaction.