

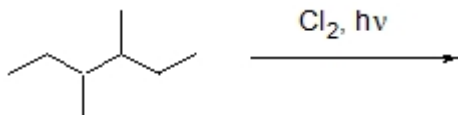
Name: \_\_\_\_\_

**Organic I Lecture**  
**Spring 2011**  
**Quiz #3**  
(10 points)

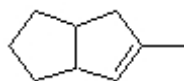
1. Use the provided table of bond dissociation enthalpies to calculate the overall enthalpy of the following reaction. (2 points, problem 4-40e)



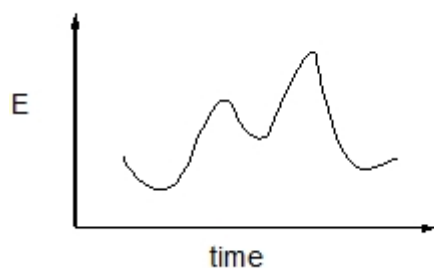
2. Draw the major product of the following reaction. (3 points)



3. How many monochlorination products are possible from the reaction in problem #2? (1 point)
4. Add a (+) to the structure below to generate the most stable carbocation possible. (2 points)



5. Do the following for the energy profile diagram below. (3 points)



a) Place a star above the transition state of the rate determining step. (1 point)

b) What does the structure of the transition state of the rate determining step most closely resemble? (1 point)

c) (Circle one) Overall this reaction is ( endogonic / exogonic ) . ( 1 point)