

Name: _____

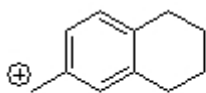
Organic I Lecture
Spring 2010
Quiz #3
(10 points)

1. Consider the energy diagram for the radical chlorination of methane. The structure of the transition state for the following half reaction would most closely resemble which of the following? (2 points, problem 4-49a)

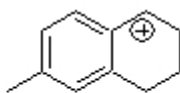


- a) reactant b) intermediate c) product d) insufficient information
2. Provide an energy diagram for an endothermic, two step reactions, where the second step is the rate determining step. (3 points)

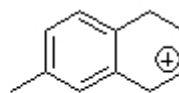
3. Which sequence correctly ranks the following cations in order of increasing stability? (3 points)



1



2



3

- a) 1<2<3 b) 2<3<1 c) 3<1<2 d) 3<2<1 e) 2<1<3 f) 1<3<2
4. How many monochlorination products are formed when 4-ethyl-2-methylhexane is submitted to chlorine and light? (2 points)