

Problem set 2 (for discussion on April 16, 2007)

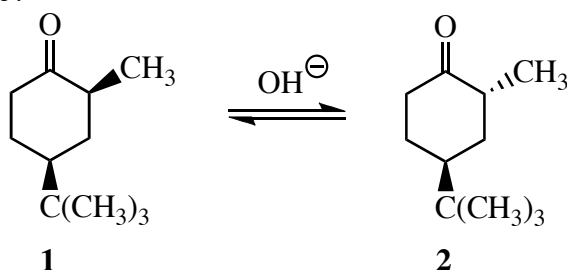
Ex. 8 from last week

Ex. 9 from last week

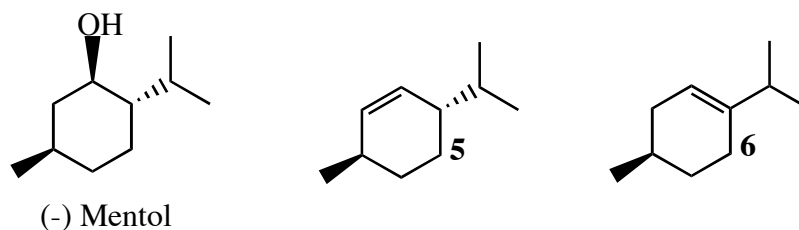
- 1) Predict the outcome of the following reactions. Describe the mechanism. How does the mechanism explain the stereochemistry of the products



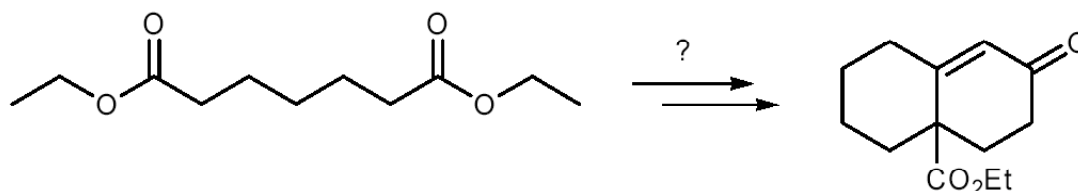
- 2) If compound **1** or **2** is treated with base, the equilibrium below is established. Explain. Which compound is the most stable?



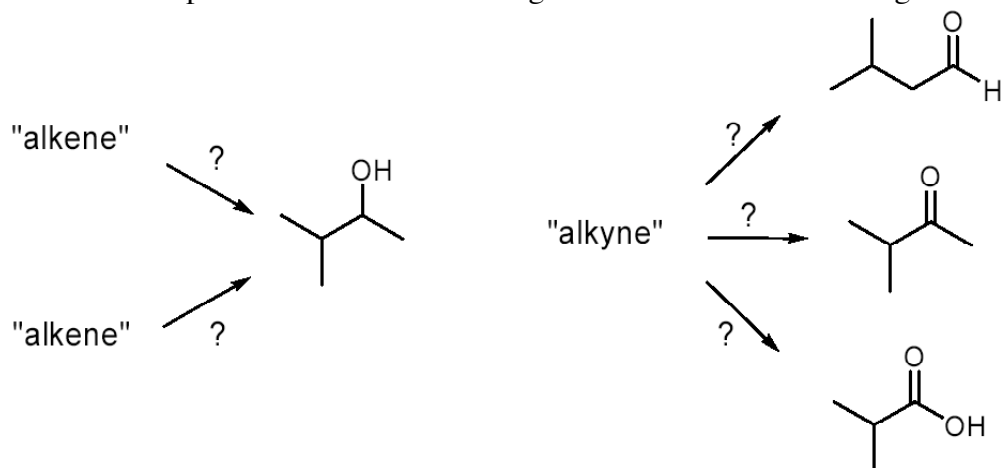
- 3) When (-) menthol is reacted with PCl_5 , a mixture of two stereoisomers, **3** and **4**, is formed. When **3** undergoes E2 elimination, the only product formed is **5**. Compound **4** gives a mixture of **5** and **6** under the same conditions. Explain, and find the structures of **3** and **4**.



- 4) Show detailed mechanism



5) Find suitable precursors for the following reactions. What are the reagents?



6) Find structures for A - F

