



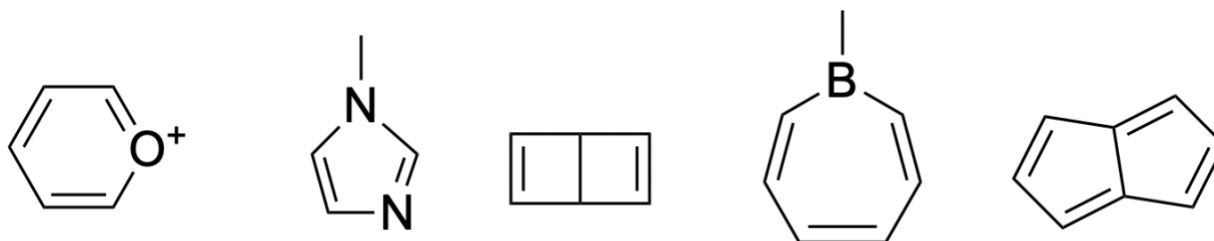
Problem Set 8

Organic Chemistry 1 (Greenberg)

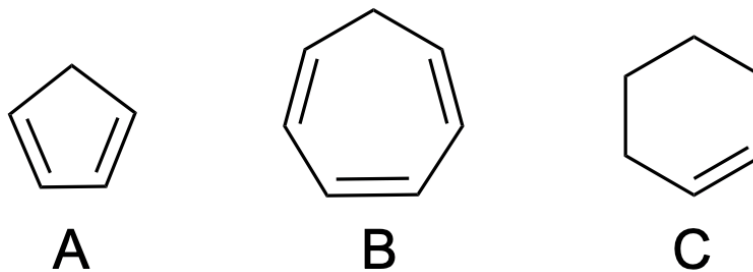
Fall 2025

1. Dr. B signed up for the International Symposium on Novel Aromatic Compounds thinking that it was a food event!
 - a. Help Dr. B fit in by listing the conditions required for a molecule to be aromatic.

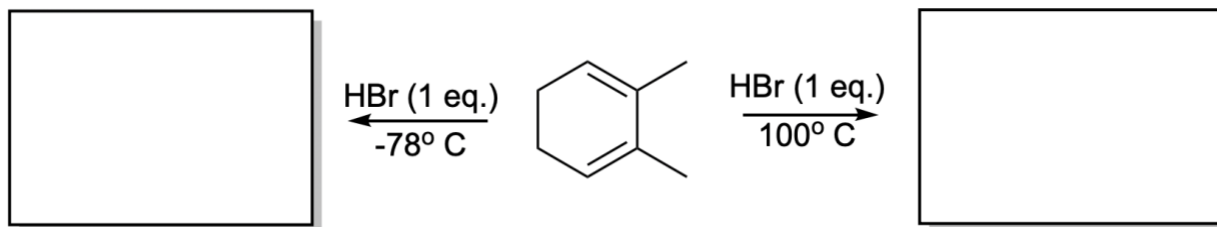
- b. In order to get a travel grant to attend the event, Dr. B must get the following question right. Circle the aromatic compounds, put an X through the nonaromatic compounds, and draw a box around the antiaromatic compounds.



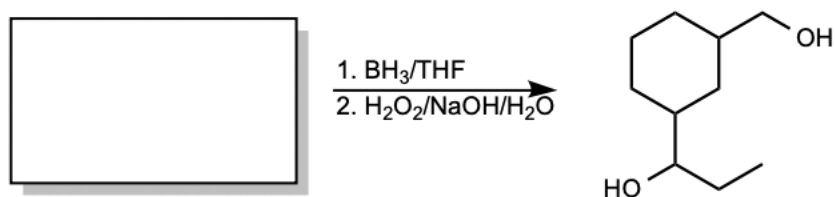
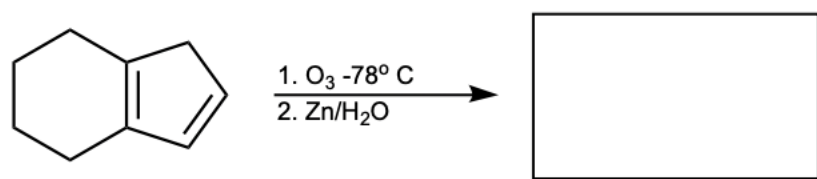
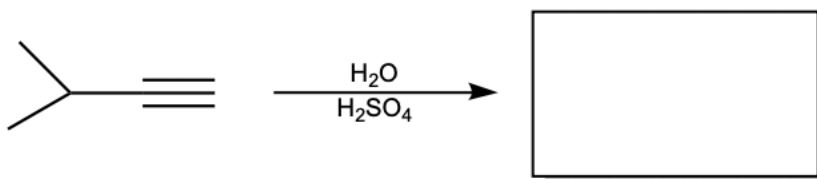
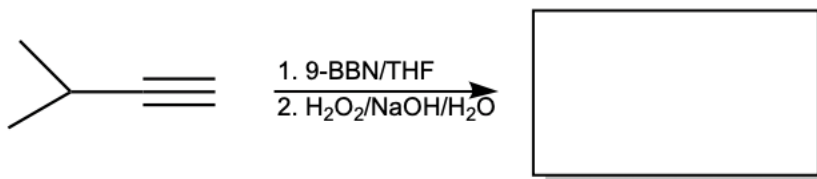
2. The following molecules are reacted with NaOH. Rank the molecules based on how fast they react with the strong base (fastest to slowest).



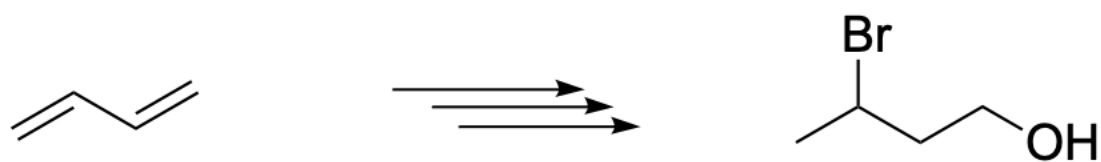
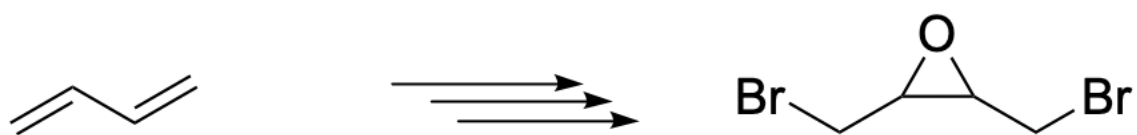
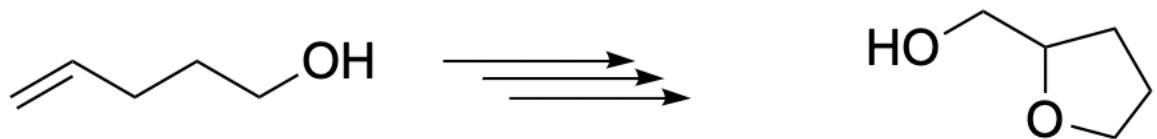
3. Joseph missed pilot last week and is stuck on this question. What is the major product for the following reactions? Draw the mechanism for both reactions.



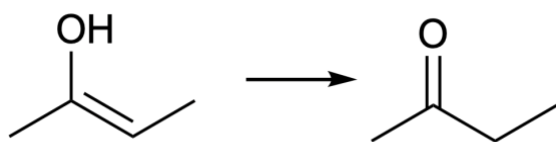
4. These questions are the most boring but must be done. Fill in the boxes ☹.



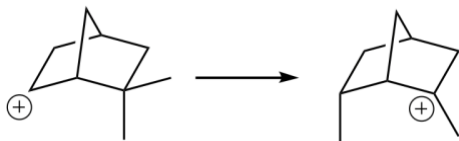
5. Propose an organic synthesis for the following reactions. Use any reagents necessary.



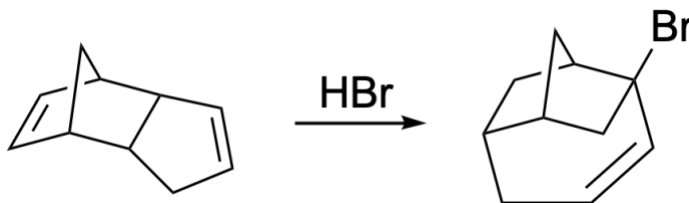
6. Draw two mechanisms for the following reaction. One mechanism should be acid catalyzed, and the other should be base catalyzed.



7. The following alkyl shift has been observed in the world of 030.205 many semesters ago. This so-called 1,3 migration requires specific conditions to occur and isn't seen often.



- a. Using geometric depictions of p orbitals and sigma bonds, rationalize this outcome.
- b. Using the above reaction as a hint, propose a mechanism for the following transformation.



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Love thrifting, crafts, and good food? The Bmore Flea Market is open every Saturday until December from 10am-3pm at Broadway Market in Fells Point. Check out their Instagram @bmoreflea for more info!