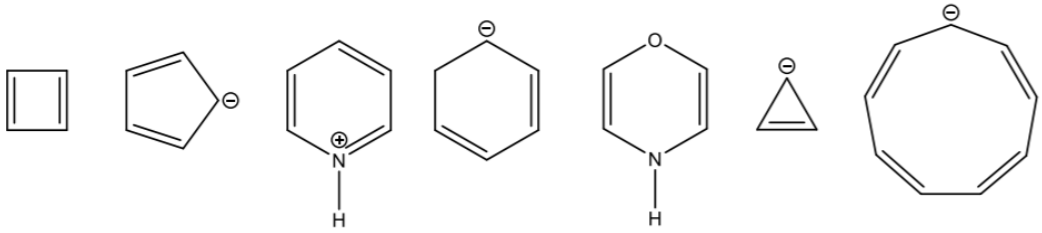
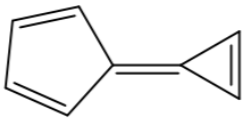
PALOT

Organic Chemistry I – Townsend
Problem Set 7
Fall 2018

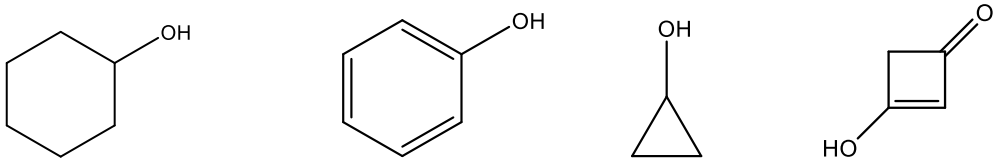
1. Identify which of the following molecules are aromatic, anti-aromatic, or not aromatic



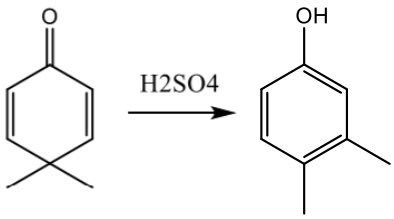
2. Draw the dipole moment of the following molecule, calicene.



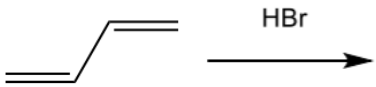
3. Rank the following molecules from most acidic to least acidic.



6. What is the mechanism of the following reaction? Explain why this reaction proceeds.

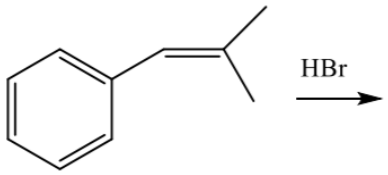


4. A. What are the two products to the following reaction and which is more stable under what conditions?



B. At 45°C, which one is more favorable? Draw a reaction coordinate diagram that depicts why.

5. What is the major product of the following reaction at 45°C?



PILOT Learning – Tip of the Week

Did you know that Hopkins has a networking site similar to LinkedIn for current students and alumni?
Check out: https://gohoponline.com
It's a great resource to find students or alumni to add to your network.

THE BRIDGE RIDDLE BRAINTEASER

A student, a lab assistant, a janitor, and an old man need to cross a bridge to avoid being eaten by zombies, as shown in the video below. The student can cross the bridge in one minute, the lab assistant takes two minutes, the janitor takes five minutes, and the professor takes 10 minutes. The group only has one lantern, which needs to be carried on any trip across. The zombies arrive in 17 minutes, and the bridge can only hold two people at a time. How can you get across in the time allotted, so you can cut the rope bridge and prevent the zombies from stepping on the bridge and/or eating your brains? (See the video for more details!) Video: https://www.youtube.com/watch?v=7yDmGnA8Hw0&feature=youtu.be