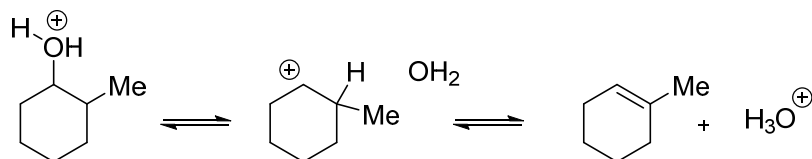
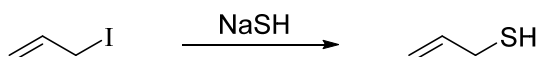
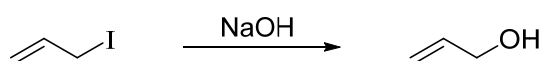


Name: \_\_\_\_\_

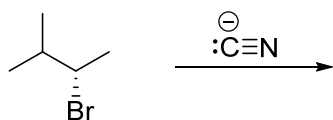
1. Draw any missing lone pairs, and then draw the curved arrows that accomplish each of the following transformations. (2 points)



2. a. Circle the reaction which will proceed at a faster rate.  
b. Briefly explain your choice. (2 points)



3. Predict the product for the following **S<sub>N</sub>2 reaction**. Be sure to clearly indicate stereochemistry. (2 points)



4. a. Predict the **major E2 elimination** product for both of the following reactions.  
b. Provide an arrow pushing mechanism for the **first reaction (i.)** to account for your predicted product. (4 points)

