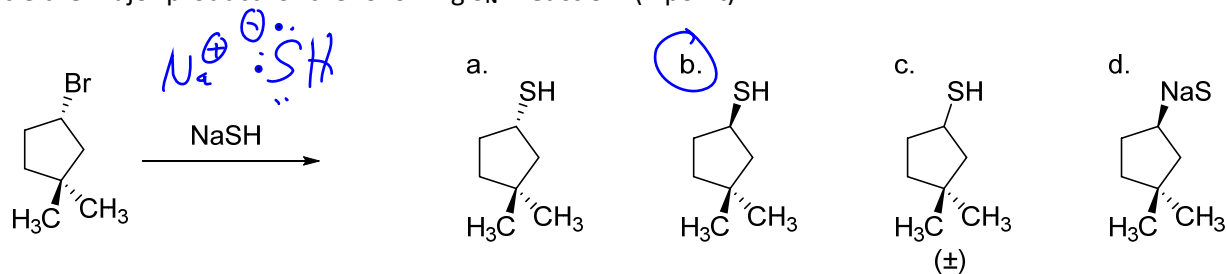
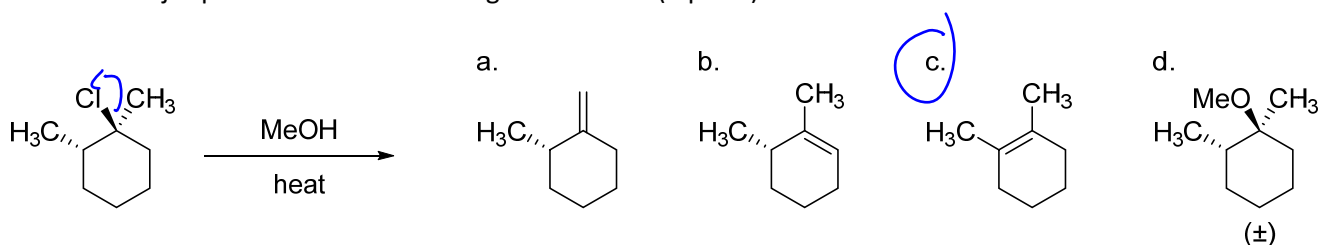


Name: \_\_\_\_\_

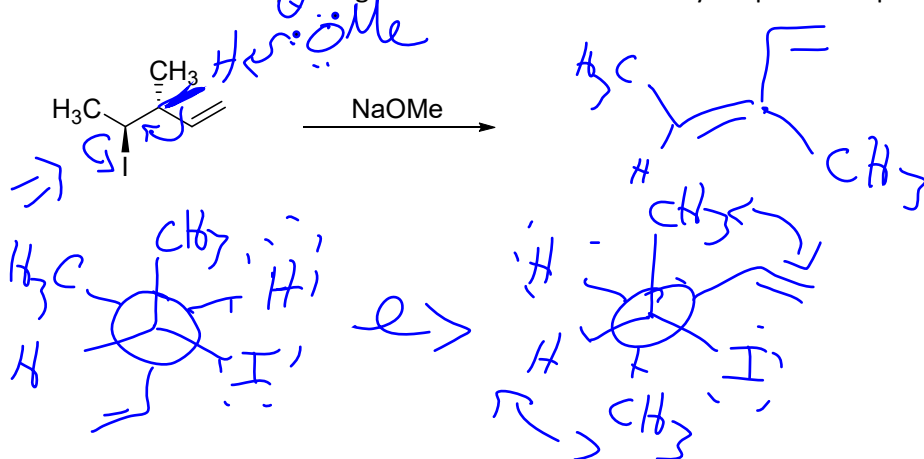
1. Circle the major product for the following **S<sub>N</sub>2** reaction. (1 point)



2. Circle the major product for the following **E1** reaction. (1 point)



3. a. Use a Newman projection to predict the major **E2** elimination product for the following reaction.  
b. Provide an arrow pushing mechanism to account for your predicted product. (4 points)



4. a. Provide a mechanism to account for the following **S<sub>N</sub>1** reaction.  
b. Use this mechanism to briefly explain why this reaction produces a **racemic (±)** mixture of products. (4 points)

