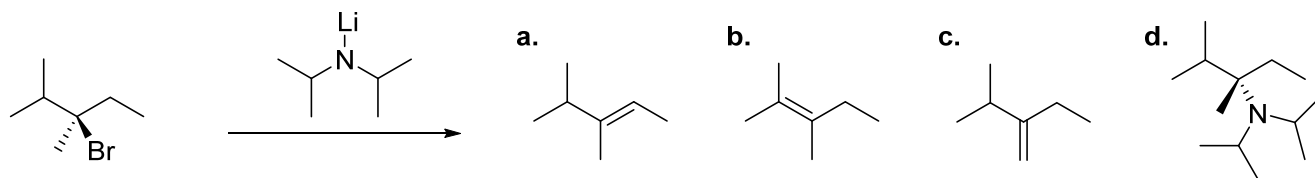
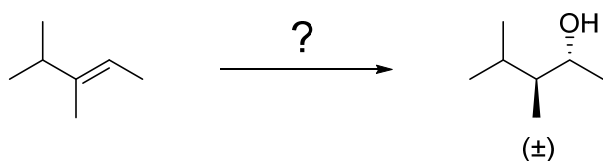


Name: _____

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

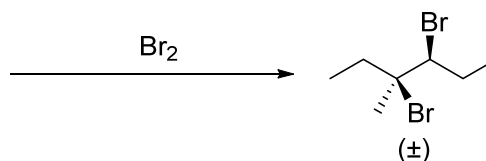


2. Circle the reagents required for the given reaction. (1 point)

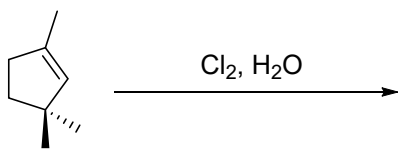


- Options:
- a. 1. $\text{Hg}(\text{OAc})_2, \text{H}_2\text{O}$
2. NaBH_4
 - b. 1. $\text{BH}_3 \cdot \text{THF}$
2. $\text{NaOH}, \text{H}_2\text{O}_2$
 - c. dilute H_2SO_4
 - d. conc. H_2SO_4 , heat

3. Provide the starting material for the following reaction. Be sure to clearly indicate stereochemistry. (2 points)



4. Provide the product(s) for the following reaction. Be sure to clearly indicate stereochemistry. (2 points)



5. a. Provide a mechanism for the following reaction.
-
- b. Briefly explain why this reaction gives racemic products. (4 points)

