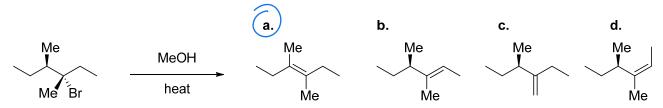
Name:_____

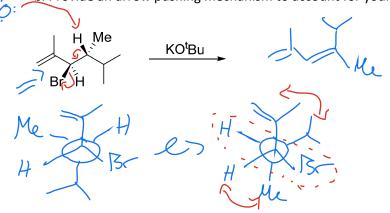
1. Circle the major product for the following **E1 reaction**. (1 point)



2. Circle the major product for the following $S_N 2$ reaction. (1 point)

3. a. Predict the major **E2 elimination** product for the following reaction. Use a Newman projection to rationalize the alkene geometry.

b. Provide an arrow pushing mechanism to account for your predicted product. (4 points)



4. Provide mechanism for the following S_N1 reaction. (4 points)