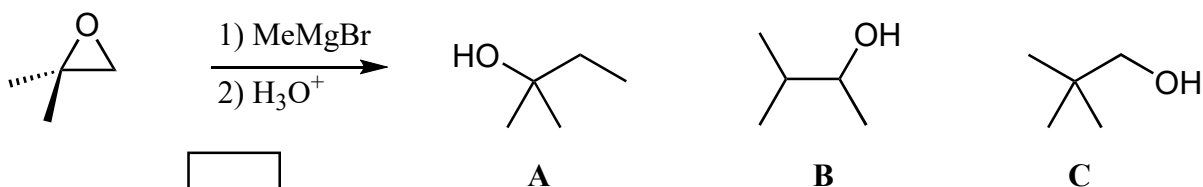
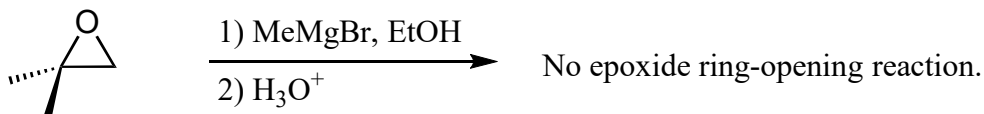


4A. (6 pts) Predict the major product formed (A, B or C) and briefly explain the *regiochemistry* of the product formed.



Explain regiochemistry:

4B. (4 pts) A student attempted the reaction above, but instead of using the required diethyl ether for the Grignard reaction, they used ethanol as the solvent. Explain why the reaction failed to produce any of the expected alcohol product.



Explain what went wrong:

4C. (10 pts) Provide a complete mechanism for the following reaction.

Pay close attention to details, including lone pairs, formal charges, and the use of curved arrows.

