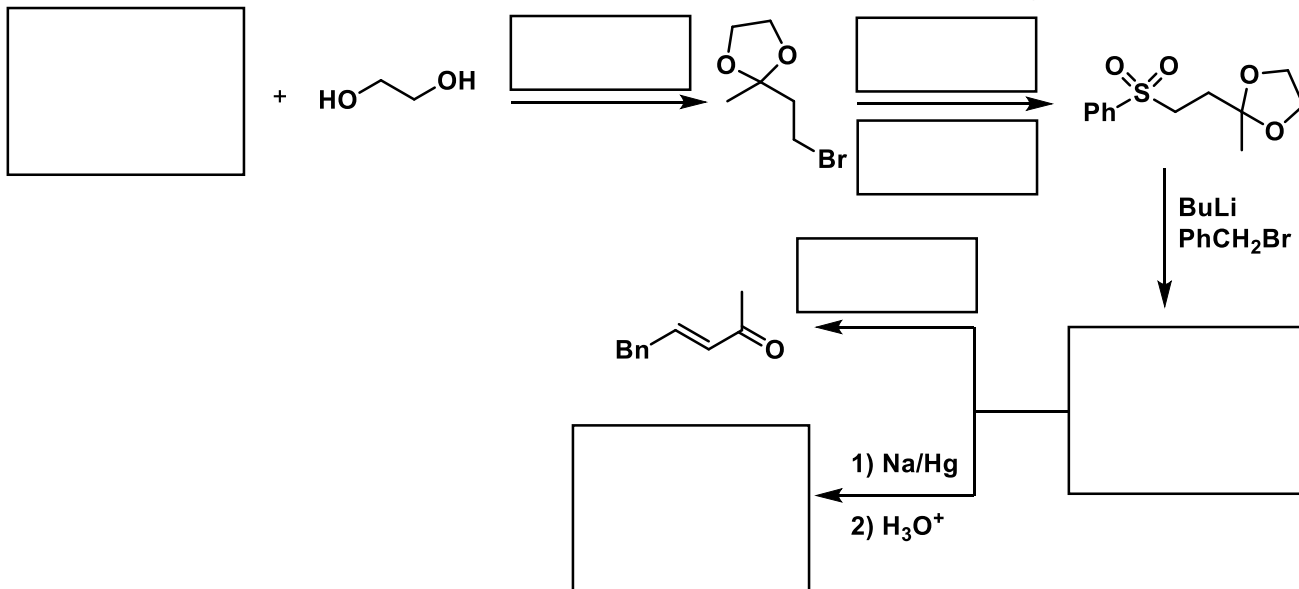




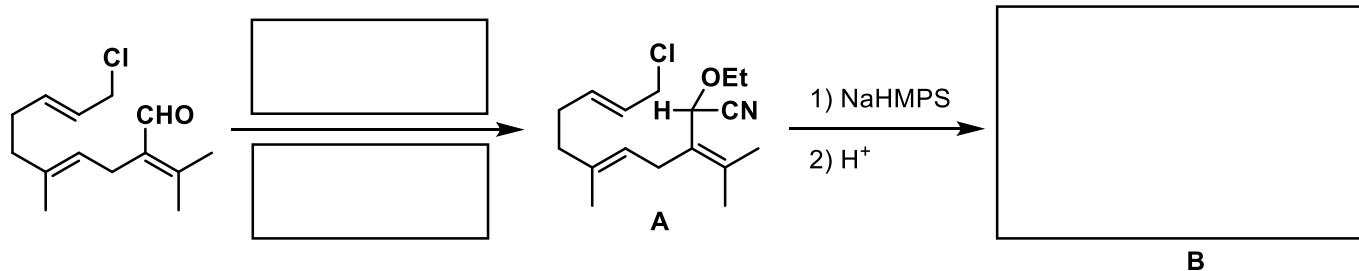
2. **Problem:** Below is a roadmap. Please provide the structures or the reagents (20 PTS)



Answer:



3. **Problem:** Please provide the reagents and structure for the following series of reaction transformations. Using the curved arrow formalism, provide a reasonable mechanism for the transformation of **A** to **B**. (20 Points)



Answer:

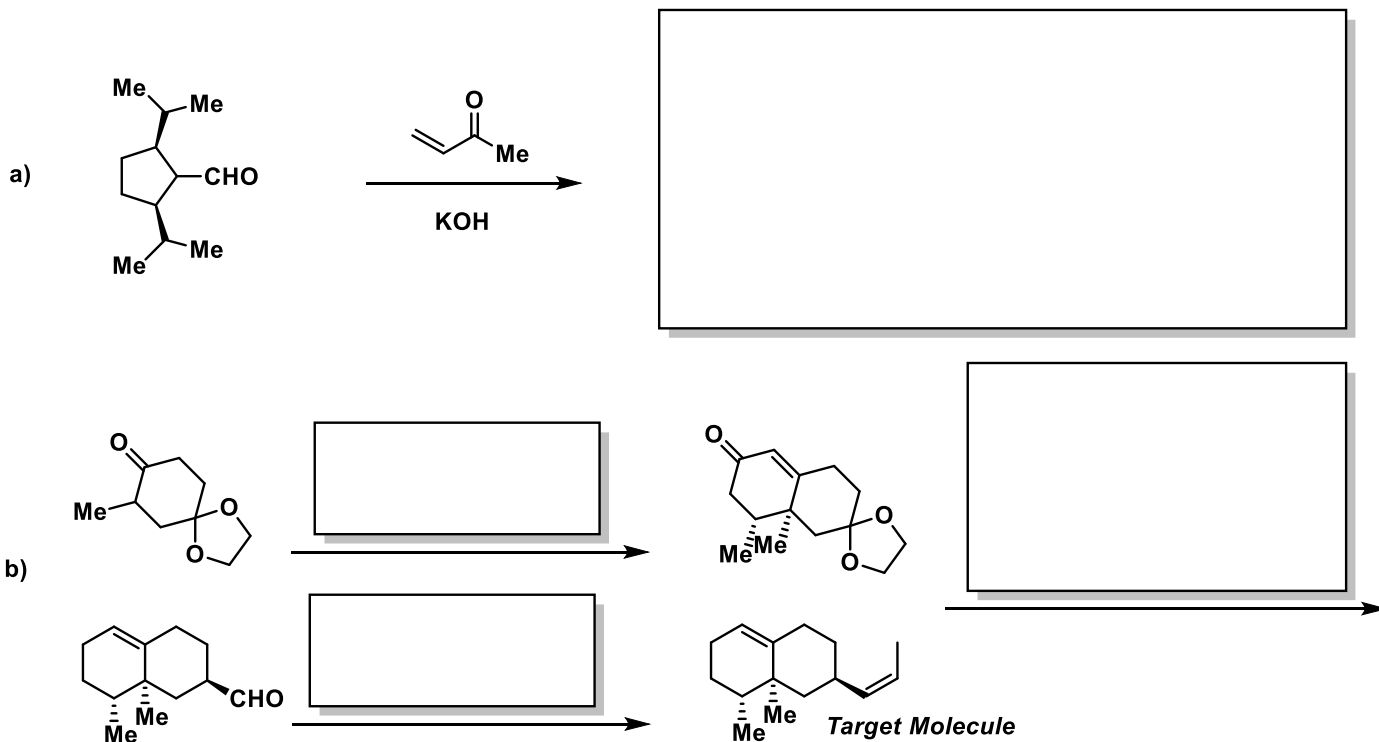


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5. **Problem:** Fill in the blanks. There may be more than one reagent necessary to carry out some of the indicated transformations. (15 PTS)



Answer: