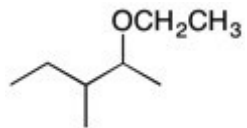
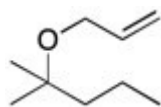


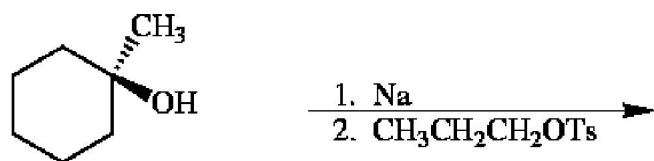
1. How could you synthesize this ether using an alkoxymercuration/demercuration reaction?



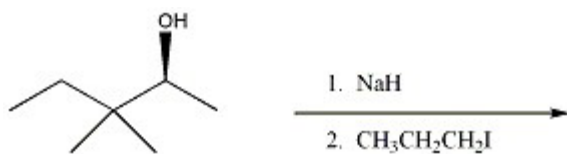
2. How could you synthesize the ether below using a Williamson Ether synthesis?



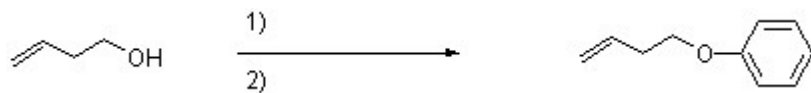
3. Provide the major organic product in the reaction below.



4. Provide the major organic product of the reaction shown below.

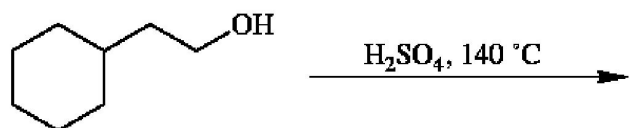


5. Provide the necessary reagents to complete the following reaction.



6. Show the reagents necessary to prepare 1-ethoxy-1-methylcyclopentane from 1-methylcyclopentene.

7. Provide the major organic product in the reaction below.



8. Suggest a reasonable mechanism for the reaction shown below.

