

Please print:

Last name: Answer key _____

First name: _____

Chem 2061 Exam 4

Fall 2005

Andy Aspaas, Instructor

Friday, December 2, 2005

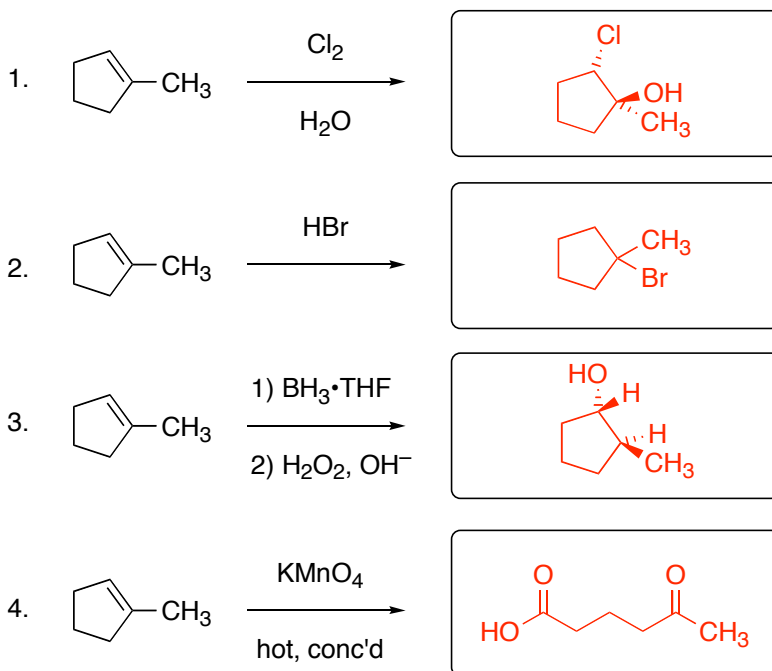
Instructions:

You have 55 minutes to complete this exam.

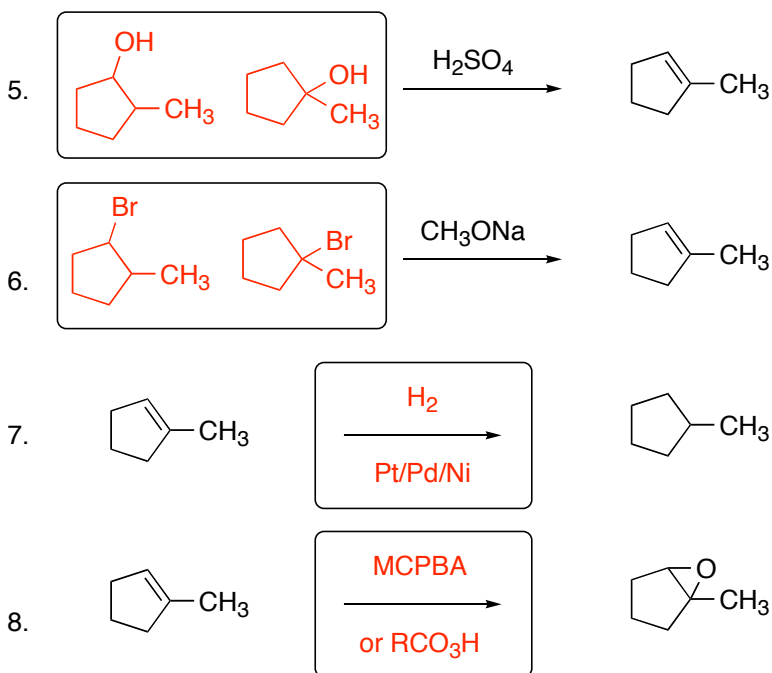
I, _____ have read and understand the directions given above, and pledge that I will follow all regulations with regard to Academic Dishonesty as outlined by this college when taking this exam.

Signature _____ Date and Time _____

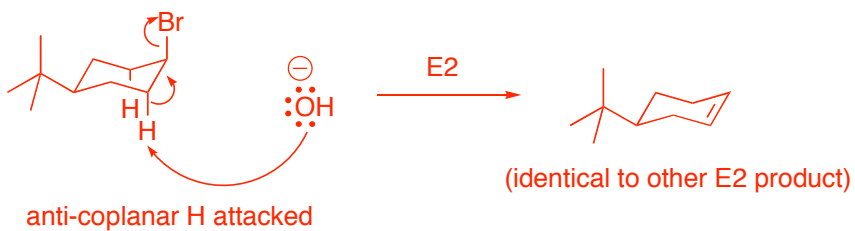
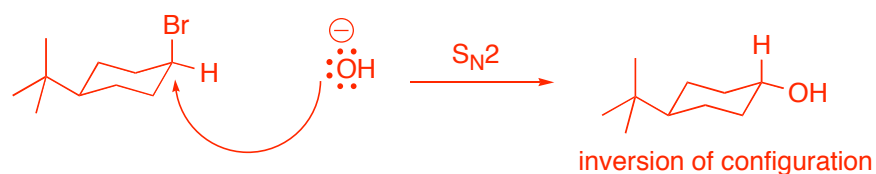
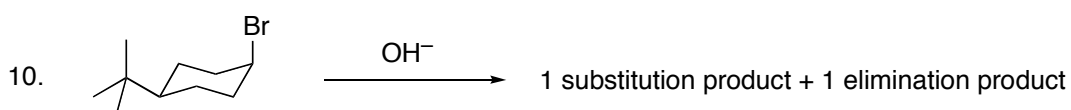
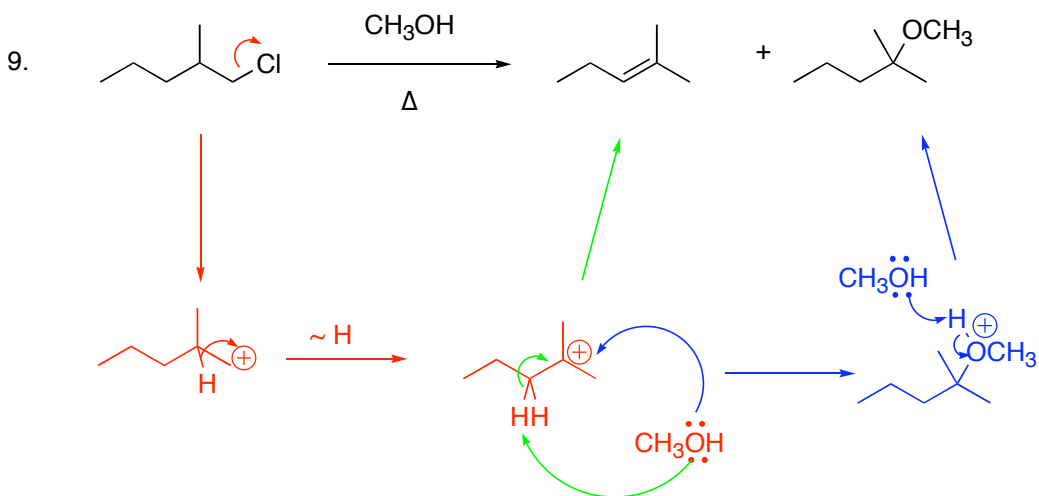
Predict the major organic product for the following reactions. Indicate correct stereochemistry where appropriate.



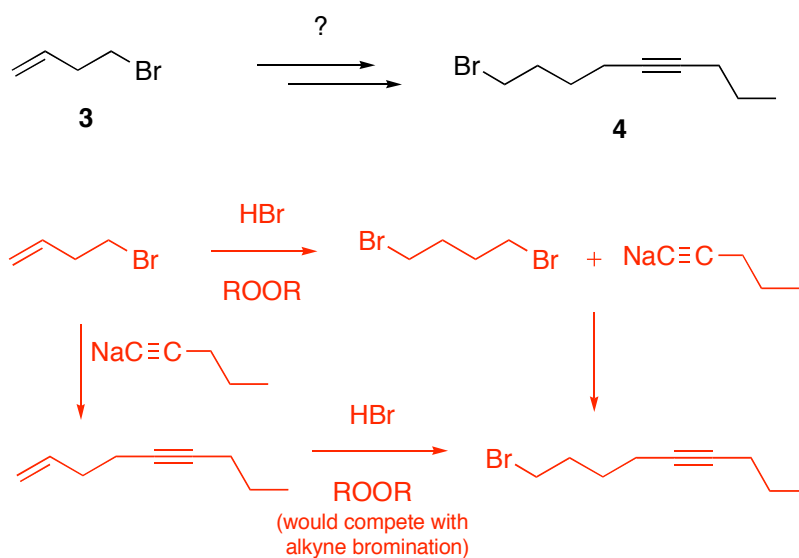
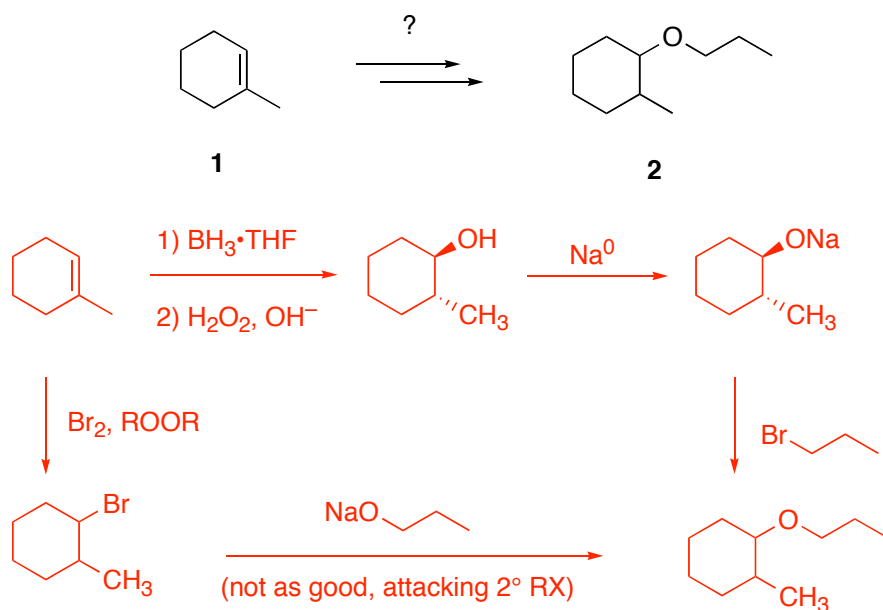
Indicate the necessary reactants or reagents to produce the following products.



Draw a full stepwise mechanism with all curved arrows to account for each of the products shown in the following reactions. If the products are not given, predict them.



11. **Choose one** of the following transformations, and construct a multistep synthesis (synthesize compound **2** from **1** or synthesize compound **4** from **3**). You may use any reagent or organic reactant you like.



12. **Choose one** of the following reactions, and draw the complete mechanism of its reaction with 1-methylcyclohexene. If the product has specific stereochemistry, be sure to show how it is formed in your mechanism.

- Hydroboration/oxidation
- Oxymercuration/demercuration
- Bromohydrin formation
- Epoxidation

