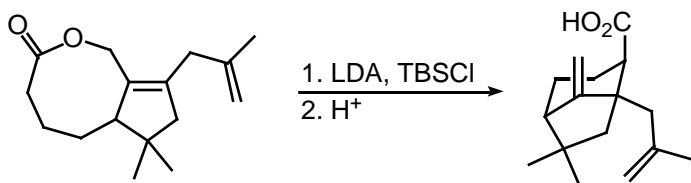


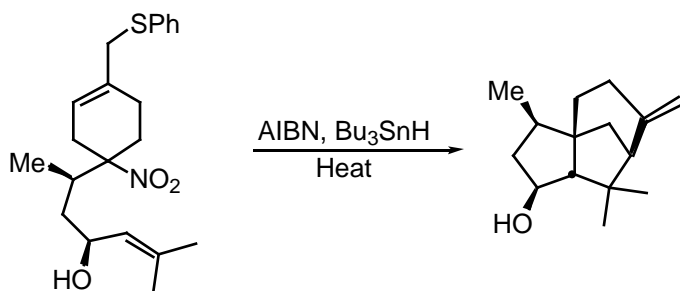
## Organic Cume October 2002

1. (48 pts) Each problem is worth 12 points. Write clear mechanisms for the following reactions using the standard electron pushing formalism. In cases where it is necessary, show the origin of the stereochemistry in the mechanism you draw. Be neat.

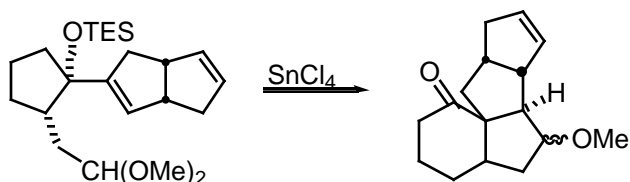
Hint 1. Claisen



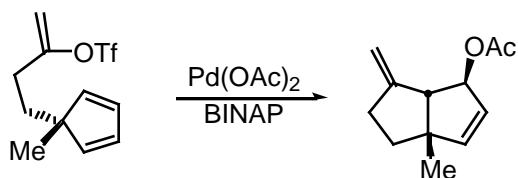
Hint 2. Radical, dude.



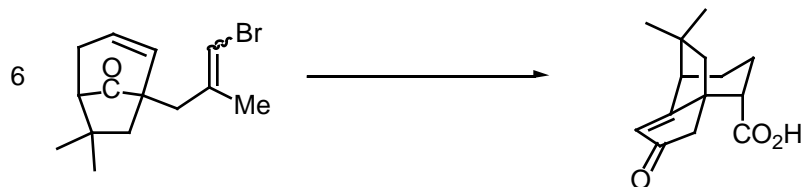
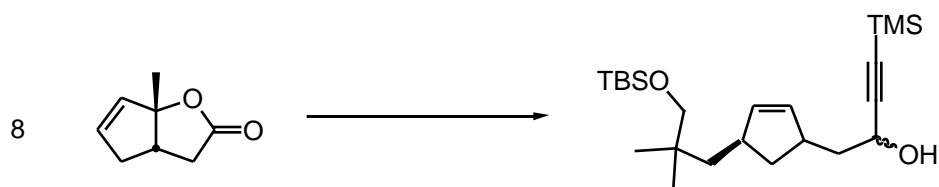
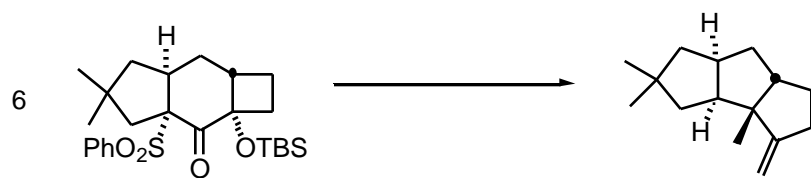
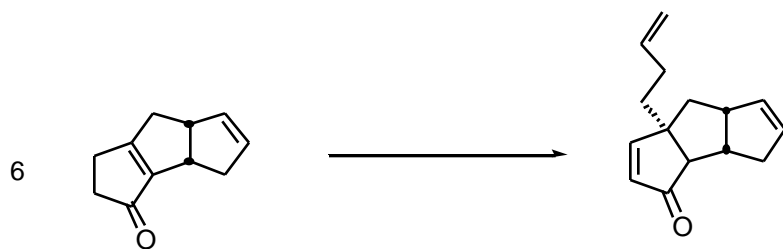
Hint 3. Wagner and Meerwein would have been proud.



Hint 4. Don't worry about stereochemistry. Knowledge of the basics of transition metal chemistry as in Chem 417 will suffice to construct a "good enough" mechanism.



2. (26 pts) Supply reagents or reactants for the following transformations.



3. (26 pts) Predict the products of the following reactions. Show stereochemistry where appropriate.

