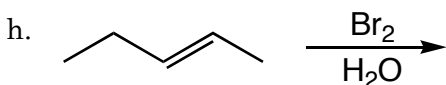
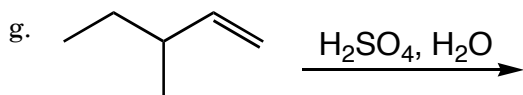
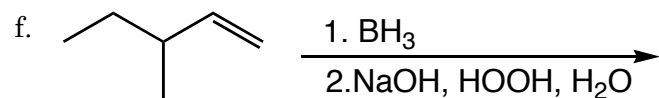
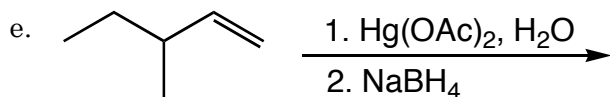
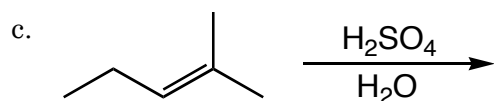
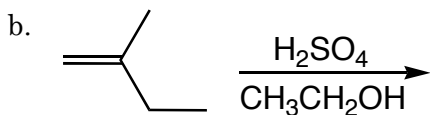
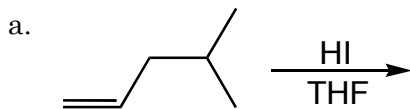
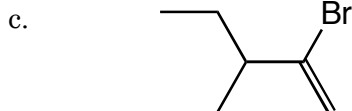
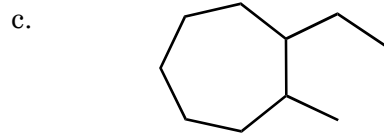
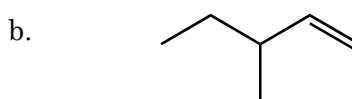
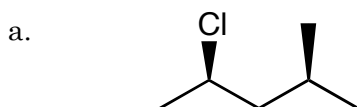


1. (32 pts.) Predict the major product(s) for the following reactions.



2. (14 pts.) Identify the chiral carbons on the following molecules.

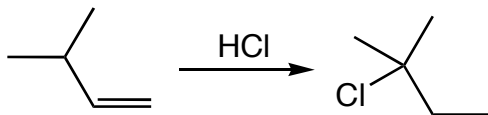


3. (8 pts.) Draw perspective (wedge and dash bond) drawings for the following molecules.

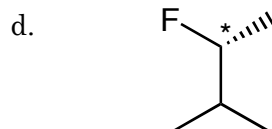
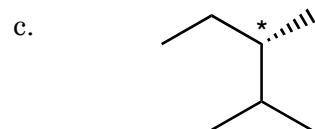
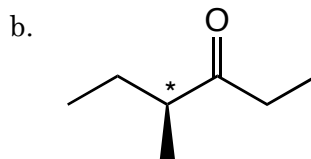
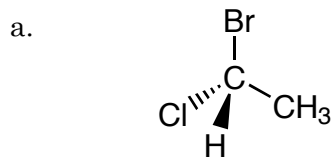
a. S-2-bromopentane

b. R-3-chloro-3-methylhexane

4. (10 pts.) Draw the mechanism for the following reaction.



5. (16 pts.) Determine the configuration of the following chiral carbon atoms (marked with a \*).



6. (20 pts.) Make the following molecules from an alkene and any reagent necessary.

