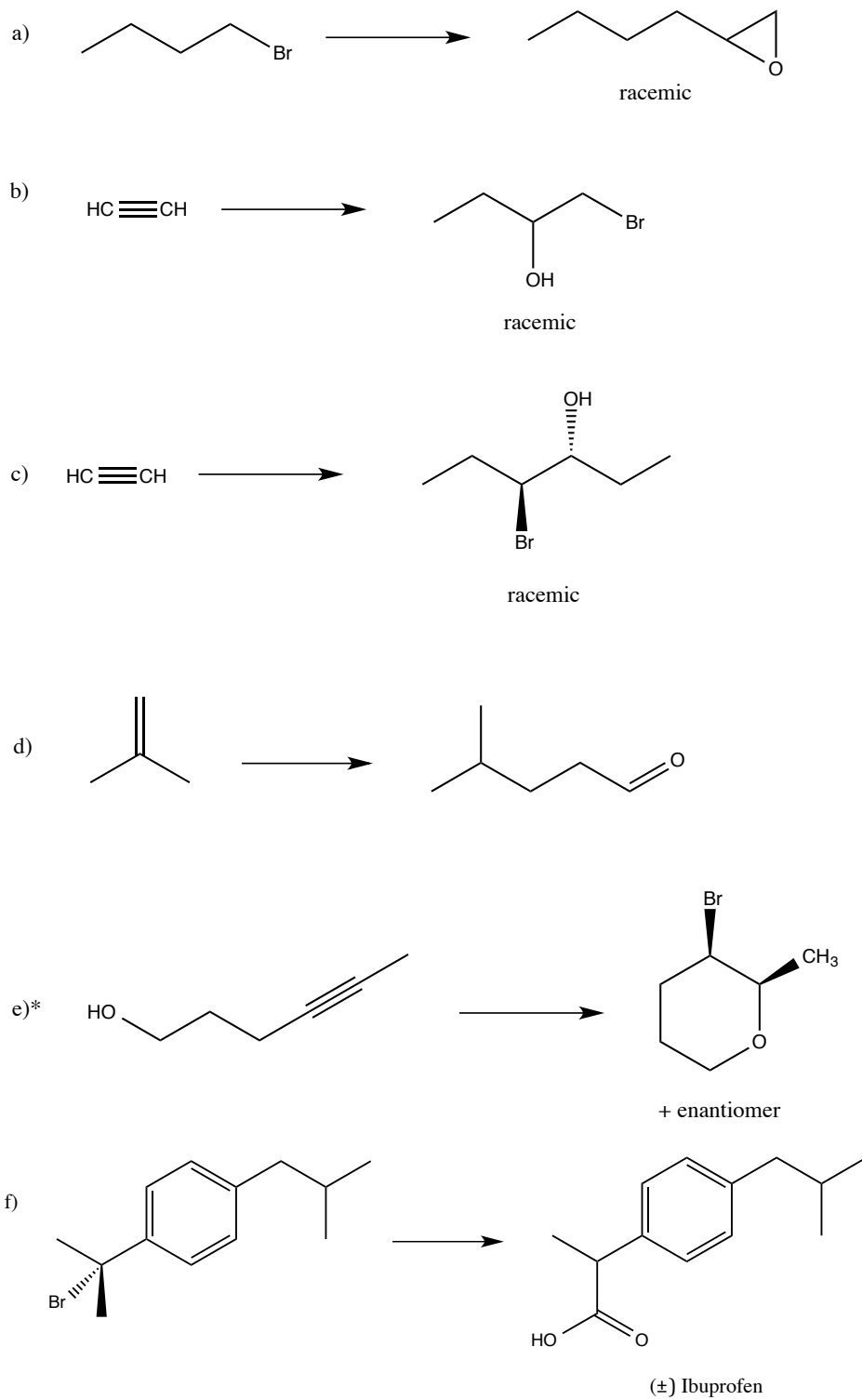


Practice Problems on Synthesis Using Alkynes

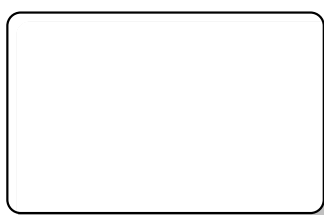
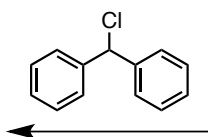
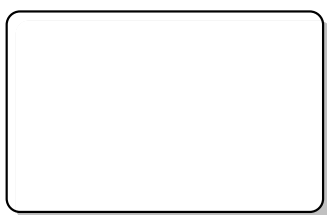
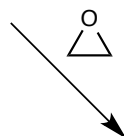
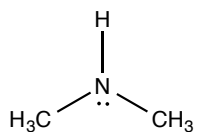
1. Propose a plausible synthetic route for each of the following.



Note: Problem 3(e) requires particular attention to stereochemistry.

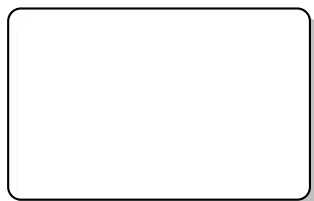
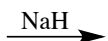
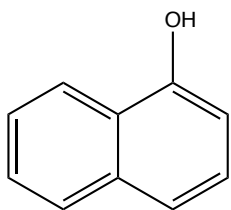
2. Draw the structure of the compound formed in each box.

a)

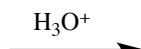


Diphenhydramine
an antihistamine

b)

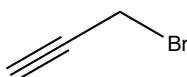


+



Propranolol
antihypertensive

- 1) CN(C)C
- 2) H_2 / Lindlar's cat.
- 3) PAA



3. Propose a plausible arrow-pushing mechanism for the following reactions.

