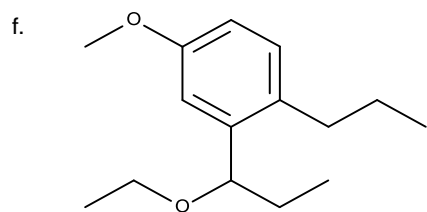
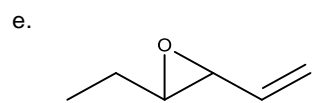
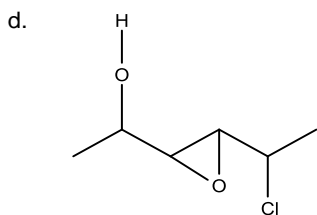
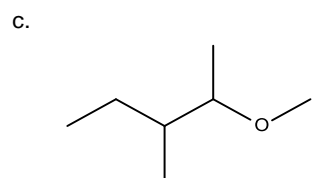
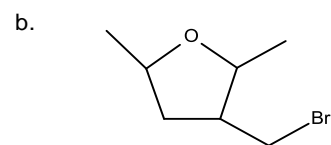
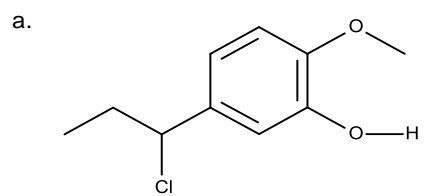
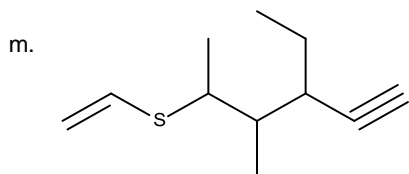
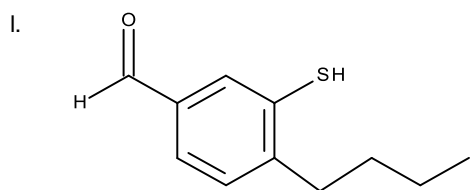
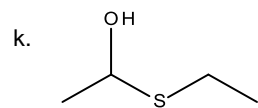
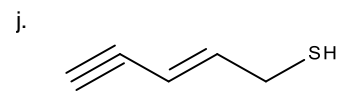
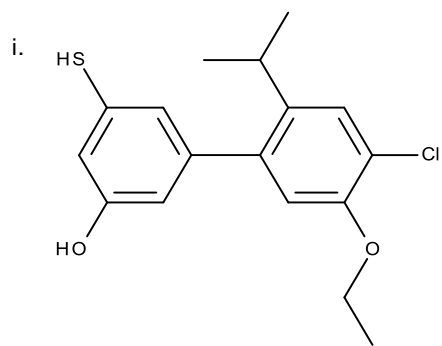
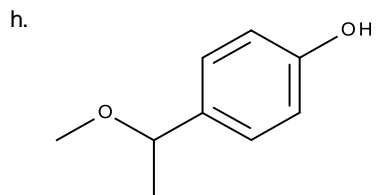
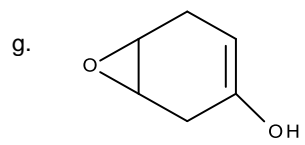


CHM 2211  
CH 18 HW

1. Name





2. Draw
- a. Cyclopentyl propyl ether
  
  - b. 2-Isopropyl-4-sec-butylanisole
  
  - c. 2-Methylpentyl 1,1,2-trimethylpropyl ether
  
  - d. 5-Ethoxy-2-hydroxybenzoic acid
  
  - e. 2-Chloro-2-methylbutyl isopropyl sulfide
  
  - f. 6-Chloro-2-iodo-3,4-epoxy-1-heptene
  
  - g. 1-Phenyl-3-pentanethiol
  
  - h. P-Mercaptobenzaldehyde
  
  - i. Methyl phenyl sulfide
  
  - j. 2-Ethylthio-4-mercaptobenzoic acid
  
  - k. Trans-1,2-Dimercaptocyclohexane

3. Rank the following from lowest to highest boiling point and explain why

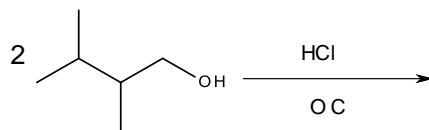
Chloropentane

Hexane

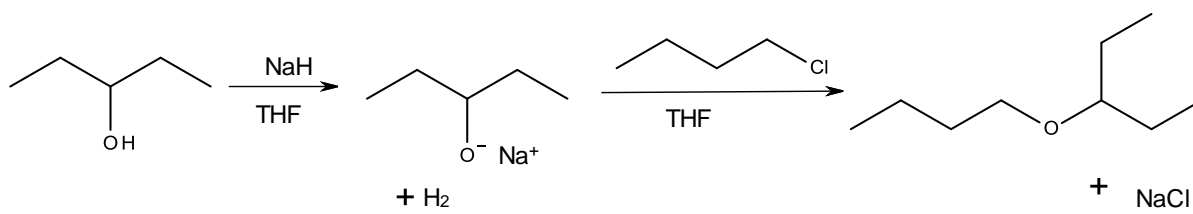
Pentanol

Butyl methyl ether

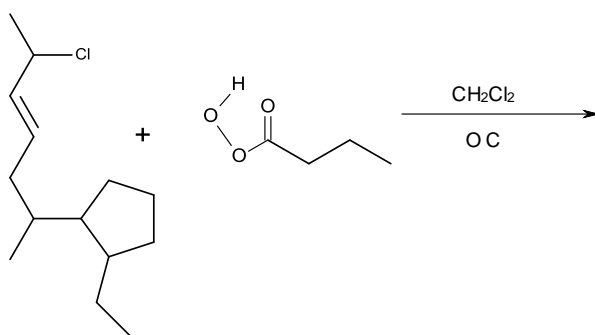
4. Complete the following mechanisms  
a. Acid cat synth of ethers



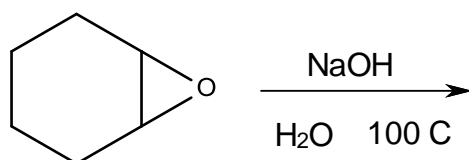
- b. Williamson ether synthesis



c. Epoxidation with peroxyacid



d. Base cat epoxide opening



5. Prepare the following
- a. Di-1-Ethyl-2-methylpropyl ether from 2-Methyl-2-pentene
  
  - b. Butyl cyclohexyl ether from any alcohol and alkyl halide
  
  - c. 2-Butanol and 1-bromoethane from any ether
  
  - d. Trans-1,2-cyclohexanediol from cyclohexene (must use epoxide)
  
  - e. Diisopropyl sulfide from 1-propene
  
  - f. 1-Methylbutyl propyl sulfide from any thiol and alkylhalide
  
  - g. Cyclohexyl 1-ethyl-1-methyl-butyl ether from any alkene and alcohol
  
  - h. 2-Cyclopentyl -1-ethanol from ethylene oxide
  
  - i. 6-Butoxy-2-hexanol from 2,3-epoxyhexane