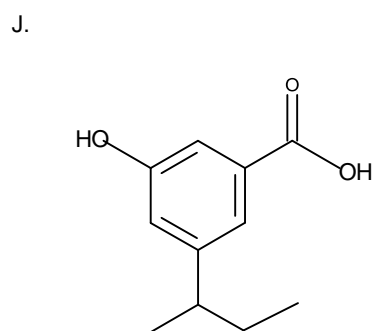
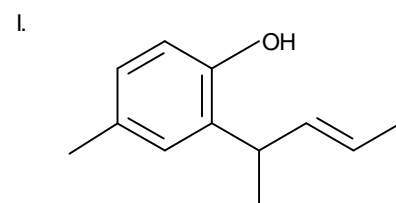
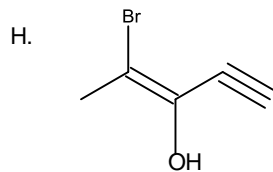
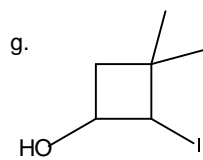
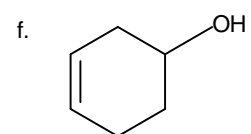
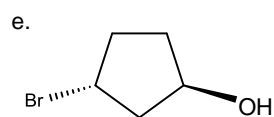
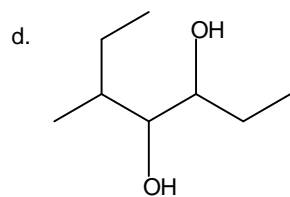
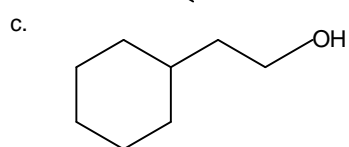
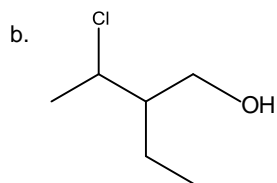
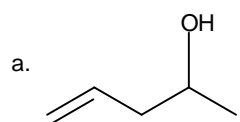


CHM 2211
CH 17 HW

1. Name



2. Draw

- a. 3-(3-Ethyl-2-isopropylphenyl)butanol
- b. (Z)-5-Chloro-4,7-dimethyl-5-octen-1-yn-3-ol
- c. 5-Chloroocta-2,6-diyne-4-ol
- d. 3-Methyl-4-(2-methylpropyl)-2,5-hexanediol
- e. 2-(3-Bromo-5-(1-chloroethyl)-2-fluorocyclohexyl)cyclopropanol
- f. 3-(3-*t*-Butyl-5-ethylphenyl)-1-hexanol
- g. (E)-3-Ethynyl-5-hepten-2-ol
- h. Cis-1,2-Cyclohexanediol
- i. (Z)-3-Chloro-6-methyl-2-nonen-2-ol
- j. 3-Phenyl-2-butanol

3. Label lowest to highest boiling point for the following and then explain why?

1-Hexanol

Hexane

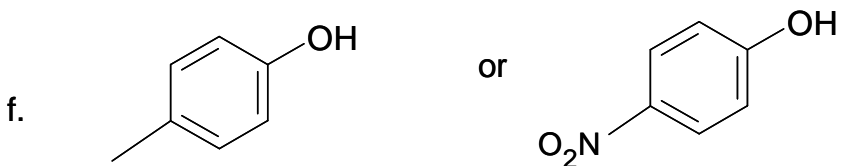
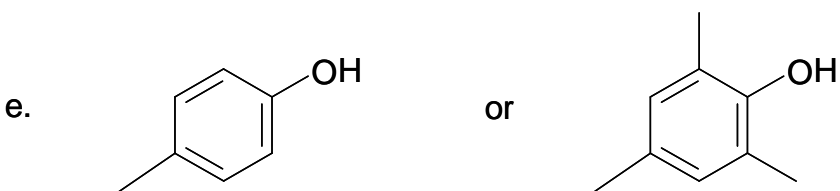
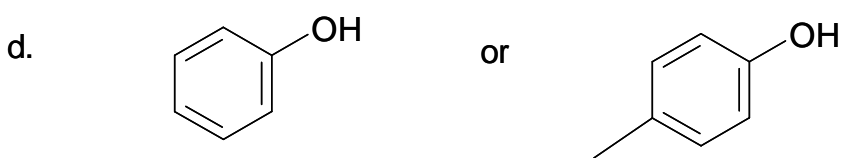
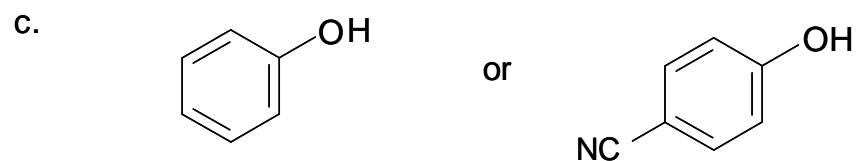
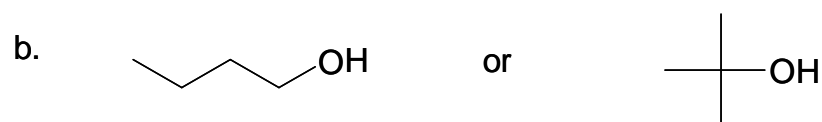
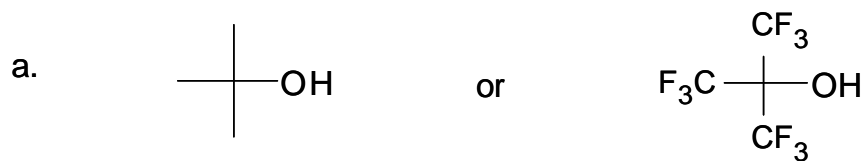
1-Chlorohexane

3-Hexyne

Cis-3-Hexene

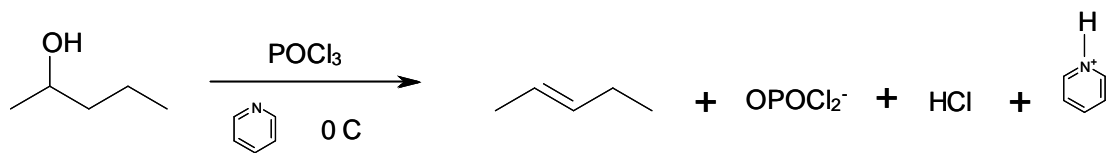
Trans-3-Hexene

4. Label which is the most acidic in each pair and then explain why?

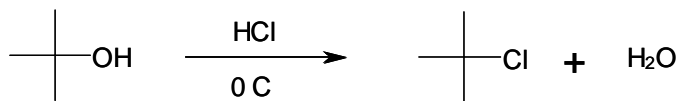


5. Show the complete mechanisms for the following reactions

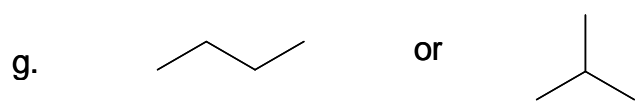
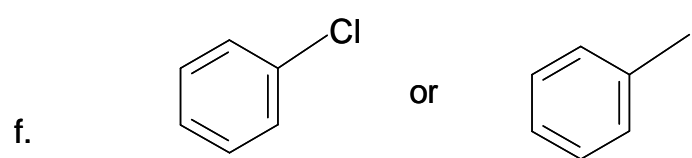
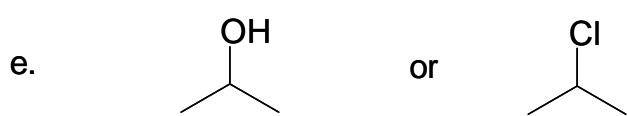
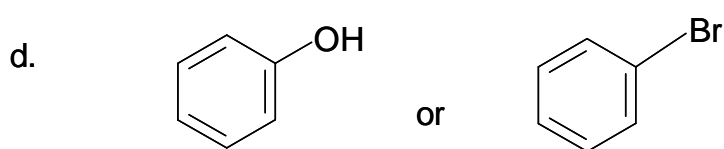
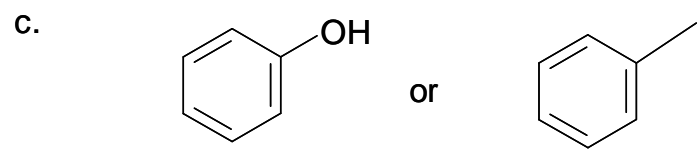
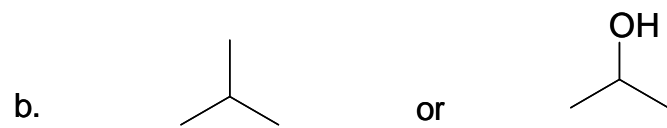
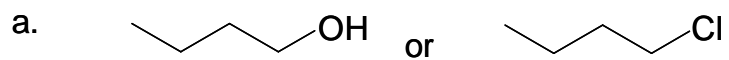
a.



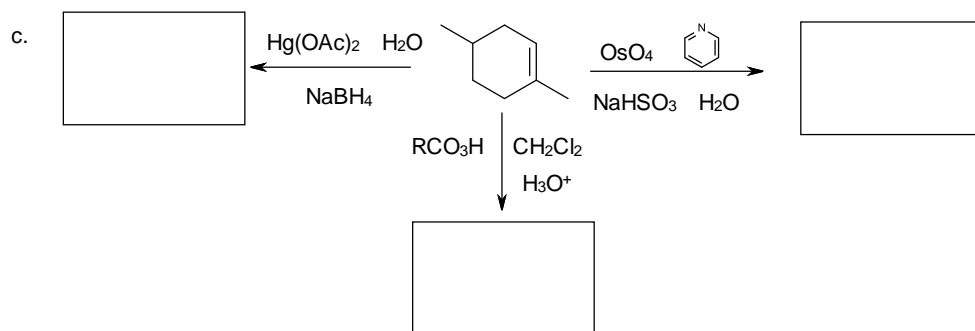
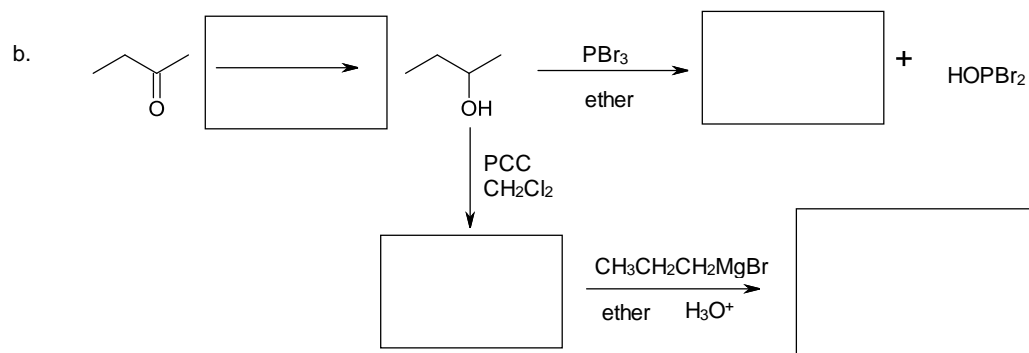
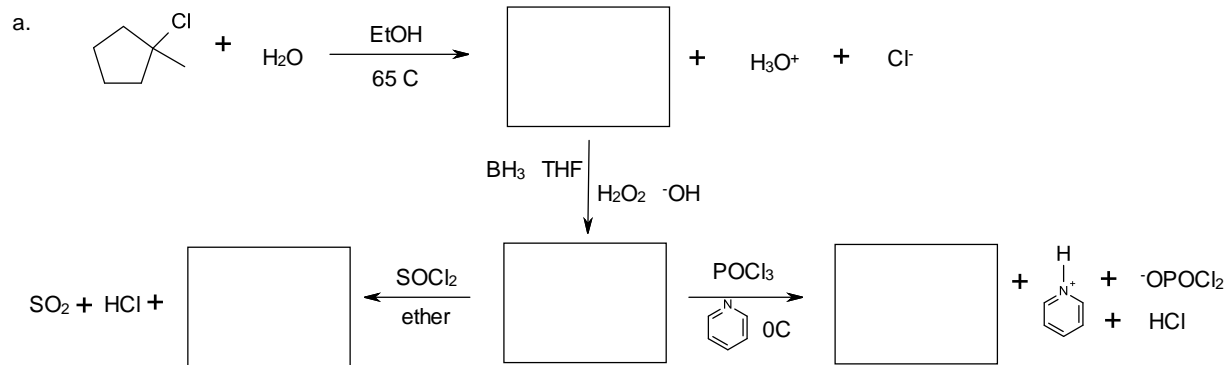
b.

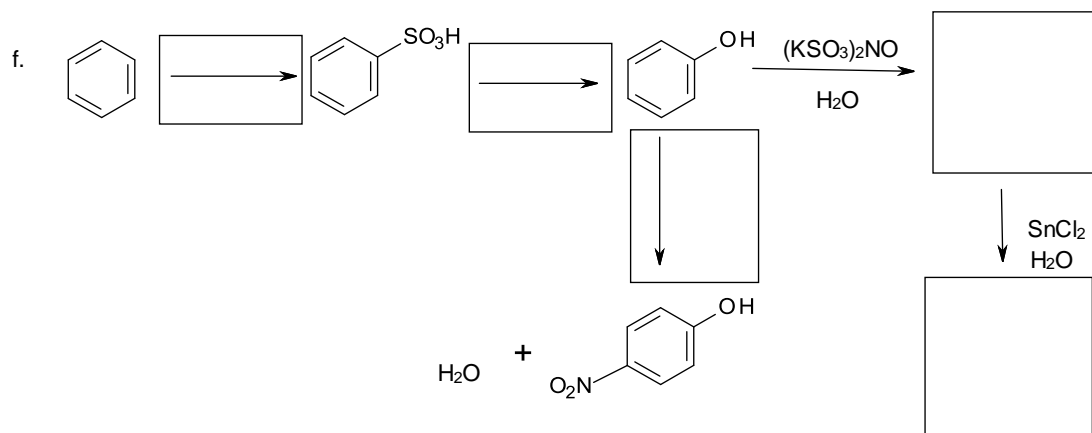
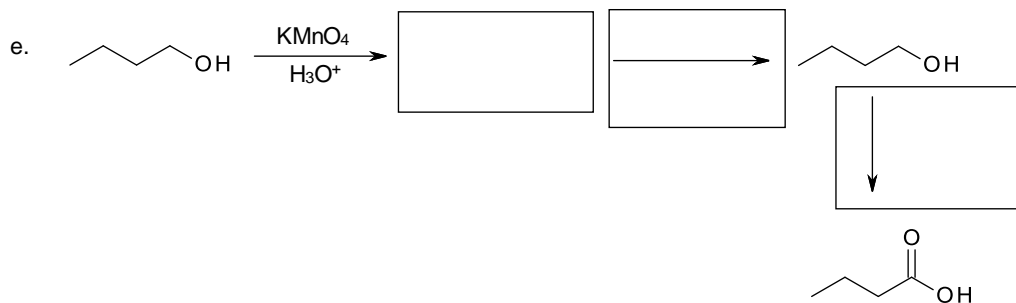
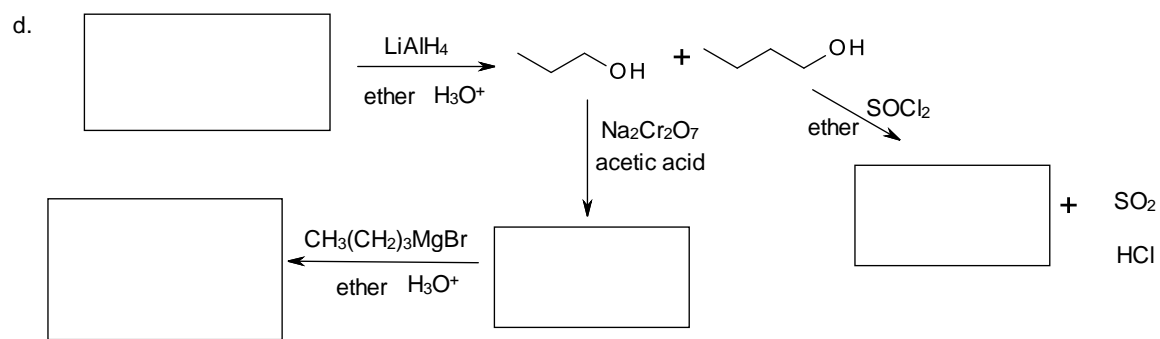


6. In each pair circle the compound with the highest BP and explain why



7. Fill in the Boxes





8. Prepare the following
- a. Cis-1,2-cyclohexanediol from chlorocyclohexane
 - b. 2,4-Dibromopentane from hexane-2,4-dione
 - c. 4-Octanol from 1-Pentanol
 - d. Carbon dioxide and butanoic acid from methyl butanoate
 - e. 1-ChloromethylBenzene from Benzaldehyde
 - f. Trans-1,2-Cyclopentanediol from cyclopentanol
 - g. 2-Methyl-2-pentanol from 2-methyl-3-pentanone
 - h. 1-Chloro-1,2-dimethylcyclopentane from 1,2-dimethylcyclopentene
 - i. Cyclohexylmethanal from cyclohexylmethanoic acid
 - j. Ethane and 4-Ethyl-3-hexene from Ethyl Propanoate