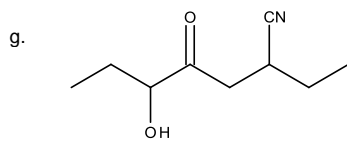
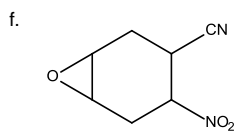
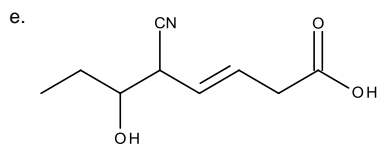
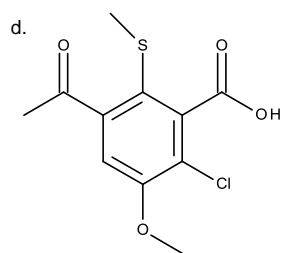
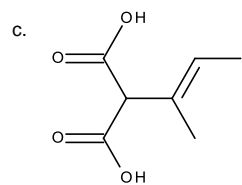
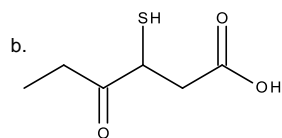
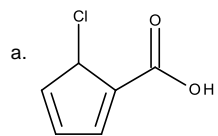


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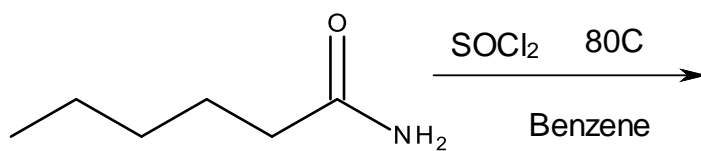
1. Name



2. Draw

- a. O-ethylthiobenzoic acid
- b. 3-Cyano-2methylPenatanoic acid
- c. 2-Bromoethyl-4-ethoxy-6-(3-oxobutyl)-1,3-cyclohexanedioic acid
- d. (E)-6-Chloro-3-hydroxy-4-mercapto-5-Hexenoic acid
- e. 3,4-Epoxy-2-(1-oxomethyl)cyclopentanecarbonitrile
- f. 7-Cyano- 9-ethylthio-2-ethoxy-3-hydroxy-5-mercapto-5,10-dioxodecanoic acid

3. Complete the following mechanism



4. Prepare the following
- a. Ethanoic acid from 2-Bromobutane
 - b. Butanoic acid from 1-Butene
 - c. Propanoic acid from 1-Bromopropane
 - d. 1-Butanamine from 1-Bromopropane
 - e. Acetyl chloride from ethanol
 - f. 1-Cyclopentyl-1-propanone from 1-chlorocyclopentane