Organic I Recitation Handount 7 (Review Alcohols, Alkenes, Alkynes, and intro to synthesis, 10/24-26)

1) Predict the products of the following reactions

a)
$$HCN$$
 H_2O
b) O
 H_3C
 Na
 THF

c) OH NaH THF d) OH
$$CrO_3$$
 H_2SO_4

2) Propose reagents to carry out the following reactions.

a)
$$OH \longrightarrow O \longrightarrow Ph$$
 b) $OH \longrightarrow O \longrightarrow O$ c) $OH \longrightarrow OH \longrightarrow OH$ $OH \longrightarrow OH \longrightarrow OH$

3) Show a mechanism that explains the following transformations

4) How would you carry out the following syntheses.

a)
$$CO_2H$$
 CO_2H C