**EXERCISE #14a: Alcoholism Problems**

Organic Chem II Alfred State College

H+/reflux

***To ROH... fill in the blanks***

H2O

 **CH3CH=CH2 +** isopropanol

b) ether *then* H+/H2O



 + **ethylene oxide** 1-octanol

 B2H6 H2O2/OH-



c) 1-octanol

 LiAlH4 in ether

 then H2O

d) **C2H5-C=O** C3H7-OH

 |

 **OH**





e) + LiAlH4 ether *then* H2O



 ether *then* H2O



f) + CH3MgBr

 ether *then*  H2O

g) **CH3-C=O + LiAlH4 2CH3CH2OH**

 |

 **OC2H5**

  **OH**

H+/H2O reflux

 |

h) **H2C=C(CH3)2** **CH3-C(CH3)2**

 **(no peroxides)**

#  EXERCISE #14b: More Alcoholism

## Prepare 2-butanol



a)via hydroboration of an alkene



b) using a Grignard



c)using a Grignard different than in (b)



d) by three different reductions of carbonyls



1)

2)

3)

**Prepare :**



 (phenyl ethanol)

Starting with:

a)



(bromobenzene)

b)



(benzaldehyde)

c)



name me !\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



d)

(acetophenone)



e)