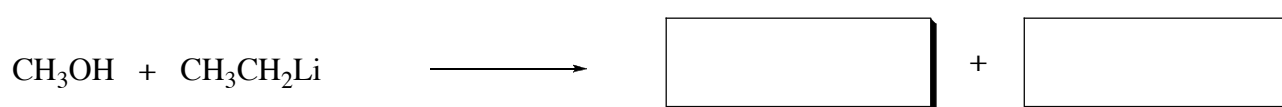


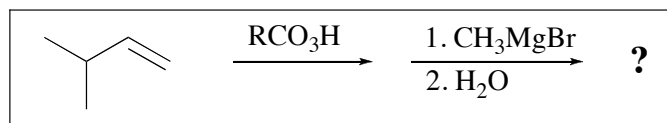
Chem 2522; Spring 2006; Quiz 2

Printed Name (Last, First): \_\_\_\_\_

1. (4) Complete the following reaction by drawing **one** product in each of the provided boxes:



2. (4) Circle the **name** of the major organic product obtained from the following sequence of reactions:



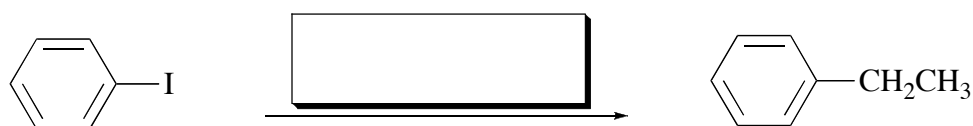
2,3-dimethyl-1-butanol

2-methyl-3-pentanol

2-isopropylloxirane

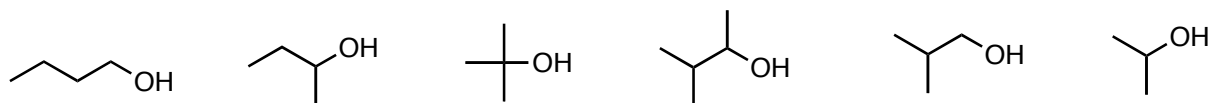
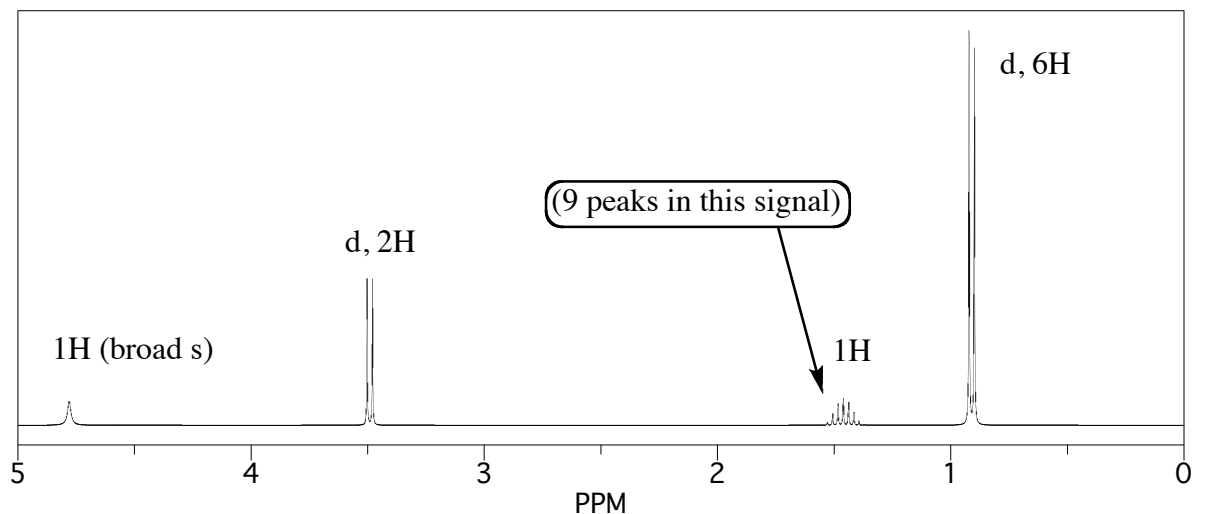
3,3-dimethyl-2-butanol

3. (4) Show the **reagent** in the box that can be used to convert the reactant to the indicated product:



4. (4) Write the value of  $m/z$  of the molecular peak ( $M^+$ ) in the mass spectrum of **methanol**:  $m/z =$  \_\_\_\_\_  
 (atomic weight of C is 12, O 16, H 1)

5. (6) Circle the structure of an alcohol which is in agreement with the following  $^1\text{H}$  NMR spectrum:



6. (3) Which of the following compounds has the characteristic IR peaks at about  $3400\text{ cm}^{-1}$  and  $2200\text{ cm}^{-1}$ ?

3-heptyn-1-ol

dimethyl ether

ethylene oxide

ethanol

*trans*-3-hepten-1-ol

2-butanone