**EXERCISE 13: More… ROADMAP PROBLEMS WITH AROMATICS**

Organic Chem II Alfred State College

**13.1 STARTERS: more hooks and handles**

Starting from benzene , aliphatic alcohols, chlorides or acid chlorides and all the usual organic reagents provide routes to:

















**at least two ways for this one…**

**13.2 REACTIONS OFF THE AROMATIC SUBSTITUENT**

from benzene and alcohols (or alkyl halides)

a)make ArCH-CH2-CH2Cl



b)make ArCHOH-CH CH3



c)make ArCH2 -CHOH-CH3





see route to: on first page, then



d)make ArCH2-CH2 –CH2OH



see route to: on first page, then



e)find a route to 1-chloro-1-phenyl-2-propanol



**13.3. DIFFERENT STARTS TO THE SAME END**

**Starting from each of the compounds below, prepare phenyl ethanol**









**phenyl ethanol**





**13.4 MAKING MULTI-AROMATIC COMBINATIONS FROM SCRATCH**

**1) Find a route to 1,2-diphenylethane**







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**2) Find a route to diphenyl methane**





**3)Find a route to:**





**13.5 Three mole Buck opportunity**

 **Starting from benzene, alcohols & alkyl halides (R-X only) with 4 or fewer carbons, propose a route to the compound below**



**(Hint: check text and Supplement 4**

**for how phenols now get made**

**from benzene)**

**(see next page for answer)**

