**exercise #18 boxing lessons with alkenes**

*carbocation, halohydrin and radical additions and alkene syntheses*

**Organic Chem I Alfred State College**

**1)**

+ **1-bromo-2-methylbutane**

2)

2-methyl-2-pentene +

**3-bromo-2-methyl-2-pentanol**

**3)**

Peroxide/acetic acid

2-methyl-2-pentene + HI

4)

+ **Z-only 2-hexene**

**5)**

**3,3-dimethyl-2-bromobutane + OH-**

**6)**

H+/H2O

Acetone in dry ether

**2,3-dimethyl-1-pentene+ 2,3-dimethyl-2-iodopentane**

Br2/CCl4

Phosphoric acid/reflux

**exercise 18(continued)**

**7)**

**2-methylpropene + 2-methyl-2-propanol**

**2-methyl-2-bromopropane**

**8) + 3,4-dimethyl-2-pentanol**

**+ 3,4-dimethyl-1-pentene**

**(minor)**

**Conc sulfuric**

**acid**

**3,4-dimethyl-2-pentanol**

**(where it all began…)**

**Cl2 in wet CCl4**