exercise #18 boxing lessons with alkenes

carbocation, halohydrin and radical additions and alkene syntheses

Organic Chem I Alfred State College

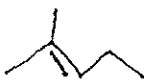
1)

+ HBr $\xrightarrow{H_2O_2,\ \text{ether}}$ 1-bromo-2-methylbutane

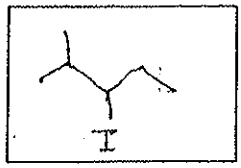
2)

2-methyl-2-pentene + Br_2 $\xrightarrow{\text{wet } CCl_4}$ 3-bromo-2-methyl-2-pentanol

3)

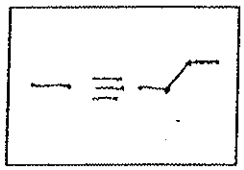


2-methyl-2-pentene + HI $\xrightarrow{\text{Peroxide/acetic acid}}$



ant: Mark. add.

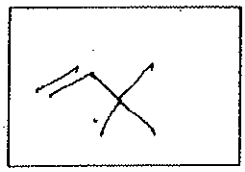
4)



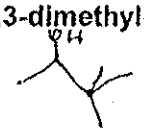
+ H_2 $\xrightarrow{\text{Pd Black (Lindlar Catalyst)}}$ Z-only 2-hexene

5)

3,3-dimethyl-2-bromobutane + OH^- $\xrightarrow{\text{ethanol}}$

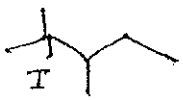


only

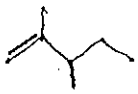


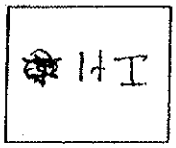
6)

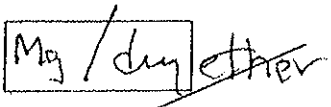
2,3-dimethyl-1-pentene + HI $\xrightarrow{\text{ether or acetic acid}}$



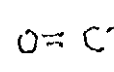
2,3-dimethyl-2-iodopentane



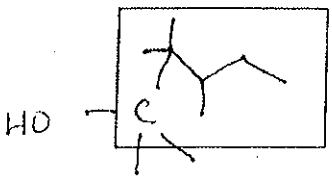




Mg / dry ether



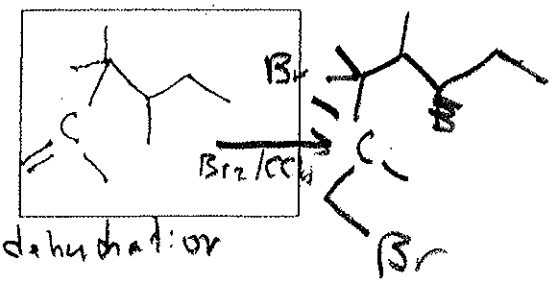
H^+/H_2O ← Acetone in dry ether



HO

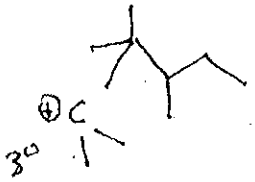
Phosphoric acid/reflux

Br_2/CCl_4 →



dehydration

rearrange ? ↓



3°

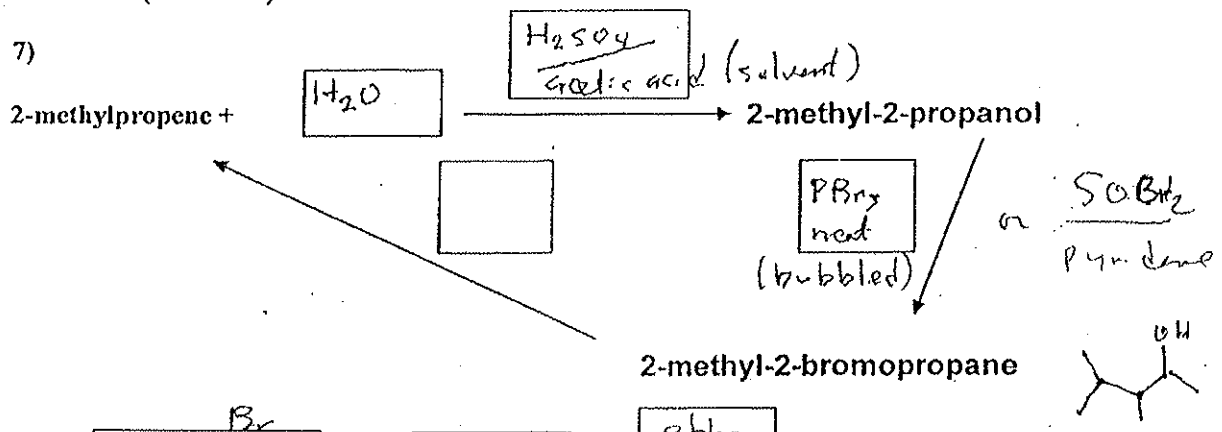
↛ no higher degree carbocation

So no rearrangement

if no rearrangement

exercise 18(continued)

7)



8)