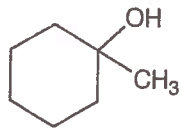
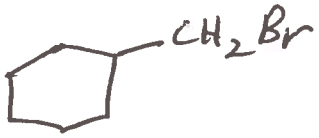
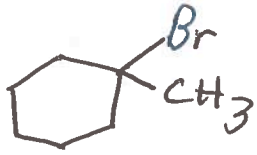
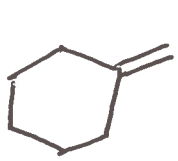
MAD ORG. CHEM. MIN. #27

1. 

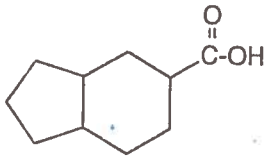
1. HBr/ether/0°
2. $(CH_3)_3CO^-K^+$
3. HBr / peroxide



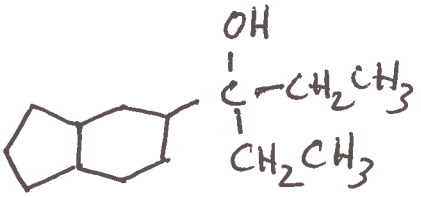
1) 

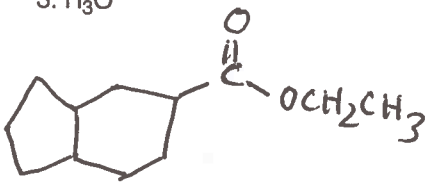
2) 

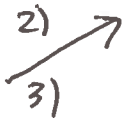
3) 

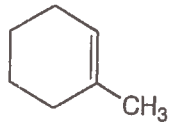
2. 

1. CH_3CH_2OH / H^+
2. CH_3CH_2MgBr (2eq)
3. H_3O^+

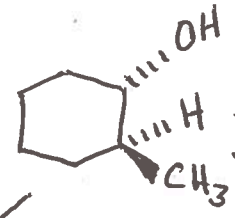


1) 

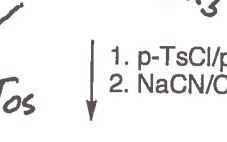
2) 3) 

3. 

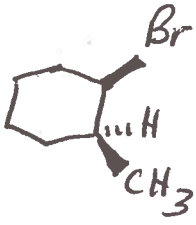
1. BH_3/THF
2. H_2O_2/OH^-

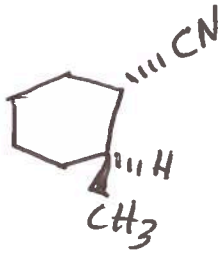


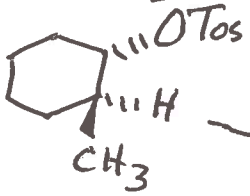
1. PBr_3/CH_2Cl_2
2. NaCN/CH_3CN

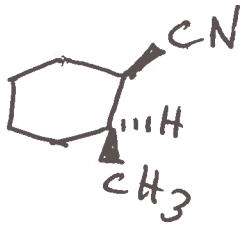
1) 

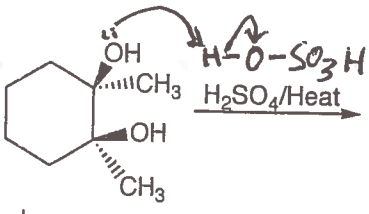
1. p-TsCl/pyridine
2. NaCN/CH_3CN



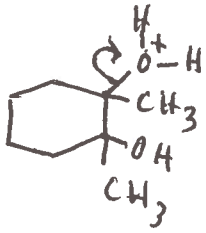
2) 

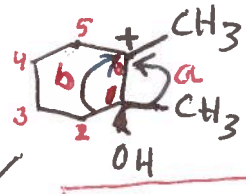


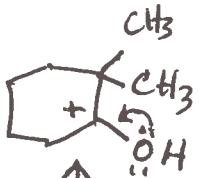
2) 

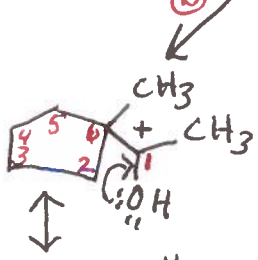
4. 

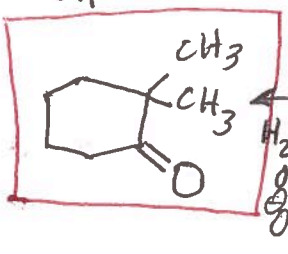
H_2SO_4/Heat

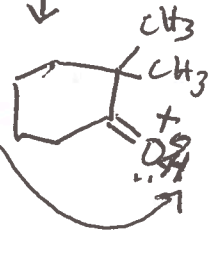




(a) 

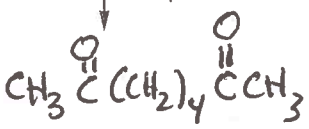
(b) 

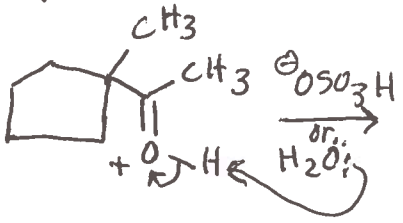


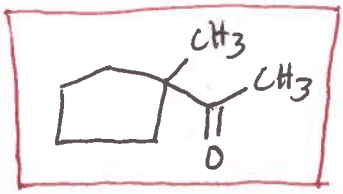


H_2O: or $HOSO_3H$

HIO_4







* always think of reactions that will form C–C bonds

5. Synthesize the compound below from alcohols of two carbons or less, any oxidizing of reducing agents, any peroxyacids, and any inorganic reagents.

gives a trisubstituted and a disubstituted, or gives a major product

would give two tri-substituted alkenes, so no major product

better choice

NO!!!

Not selective enough

6. Synthesize the compound below from cyclohexane, any alkanes of two carbons or less, any oxidizing or reducing agents, any peroxyacids, or any inorganic reagents.

1° alcohol

NO

Not an allowed starting