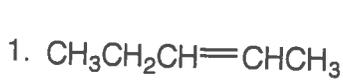
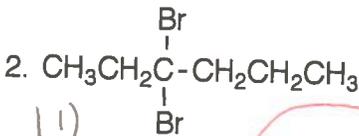
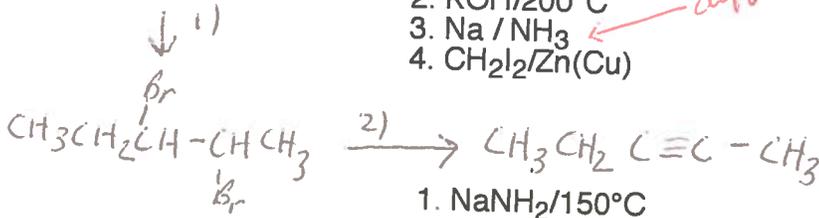


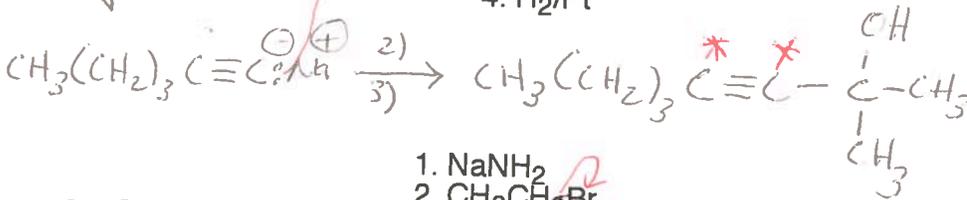
MAD ORG. CHEM. MIN. # 24 B



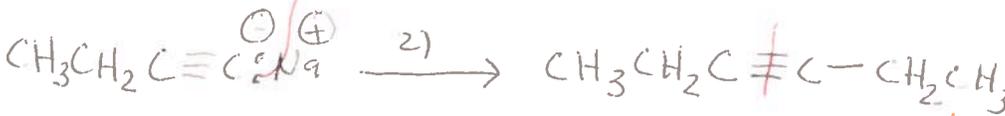
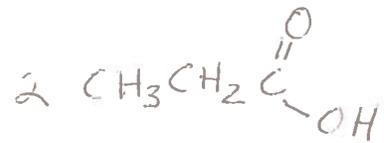
1. Br_2/CCl_4
2. $\text{KOH}/200^\circ\text{C}$
3. Na/NH_3
4. $\text{CH}_2\text{I}_2/\text{Zn}(\text{Cu})$



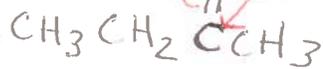
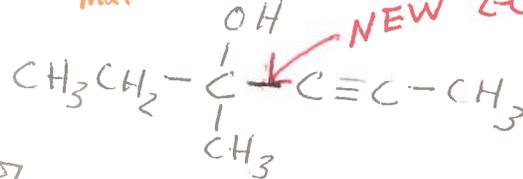
1. $\text{NaNH}_2/150^\circ\text{C}$
2. $\text{CH}_3\text{C}(=\text{O})\text{CH}_3$
3. H_3O^+
4. H_2/Pt



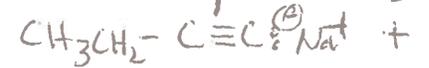
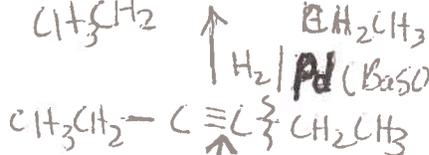
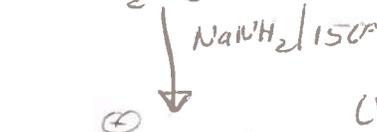
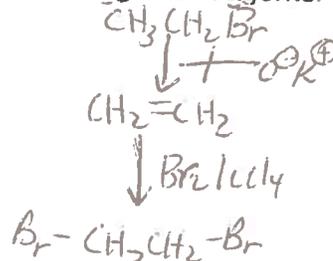
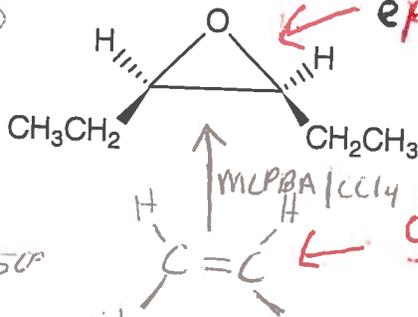
1. NaNH_2
2. $\text{CH}_3\text{CH}_2\text{Br}$
3. O_3
4. H_2O



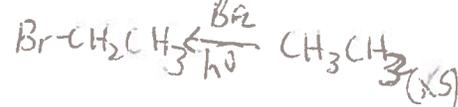
1. $\text{H}_2\text{SO}_4/\text{H}_2\text{O}/\text{HgSO}_4$
2. $\text{CH}_3\text{C}\equiv\text{C}^-\text{Na}^+$
3. H_3O^+



5. Synthesize the following compound from alkanes of no more than two carbons and any peroxyacids and inorganic reagents. Pay attention to stereochemistry.

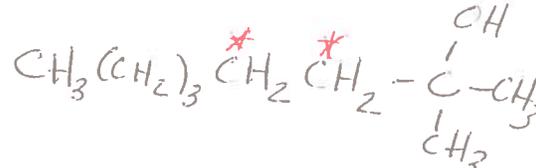
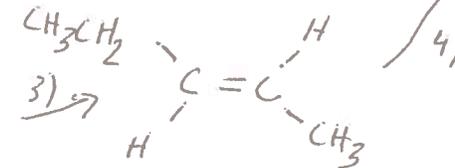
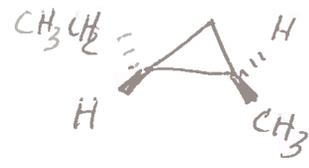


(Sindlar's cat.)



~~$\text{CH}_3\text{CH}_3 \xrightarrow{\text{Br}_2/\text{hv}} \text{Br}-\text{CH}_2-\text{CH}_2-\text{Br}$~~
NO!!
 NOT selective enough

cis double bond



Mark's (but doesn't matter here!)

NEW C-C bond