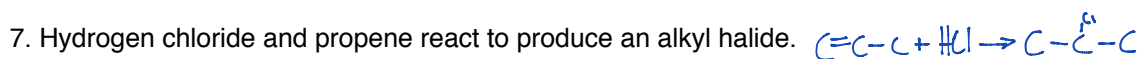
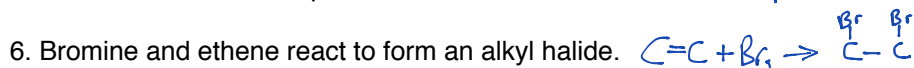
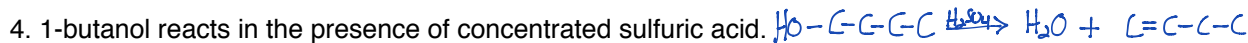
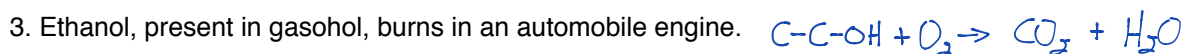
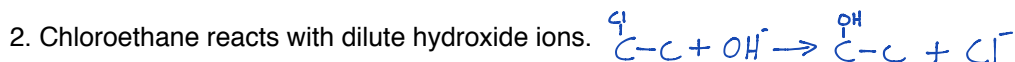
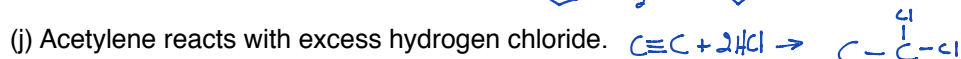
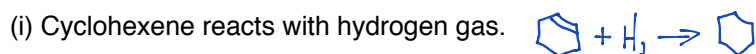
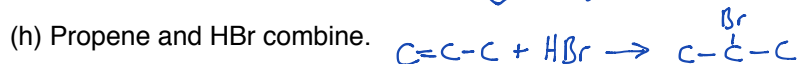
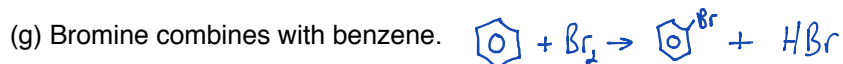
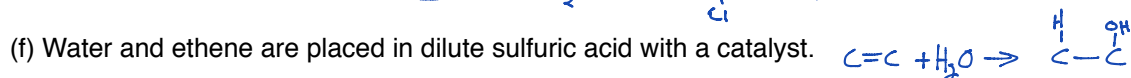
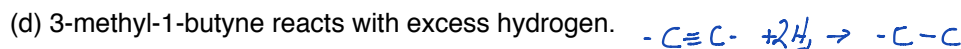
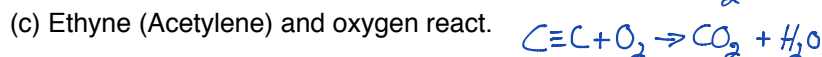
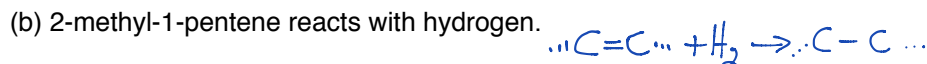
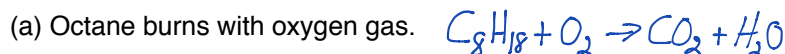
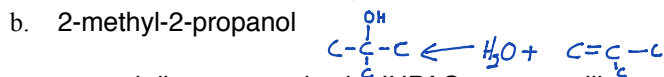


Organic Reactions Practice

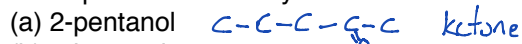
Write an equation for each of the following reactions. Use molecular and structural formulas and classify the reaction as combustion, addition, substitution, hydrogenation, or hydration.



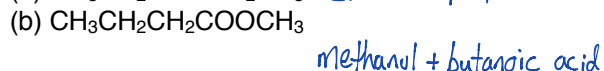
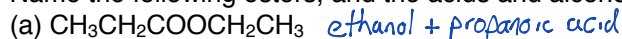
Write an equation using structural diagrams to show the production of each of the following alcohols from an appropriate alkene:



Draw structural diagrams and write IUPAC names to illustrate the controlled oxidation of the following alcohols. Is the product an aldehyde or a ketone?



Name the following esters, and the acids and alcohols from which they could be prepared.



For each, write a structural formula and an equation or a series of equations for a method of synthesis from the suggested reactants.

synthesis of a carboxylic acid from the controlled oxidation of 1-propanol *Oxidize x 2*

N-methyl ethanamide from methane, ethanol, and inorganic compounds of your choice. *Meth Halide → Meth amino*

2-pentyl butanoate from 1-pentene and butanal *ethanol → ethanal → ethanoic acid*

Butyl 2-methylpropanoate from 1-butanol and an appropriate alcohol

4-heptanone from an alcohol *4-heptanol* *2 methyl propanal*

ethyl ethanoate from ethane *→ + Cl₂ → OH → [O] → [O]*

pentyl ethanoate from ethene and an alcohol *→ H₂O → [O] → 1 pentanol*

Propyl ethanoate from an alkene and an alcohol *ethene + H₂O → [O] → 1 propanol*

3-octanone from a simpler compound

→ 3 octanol
methyl benzoate from two alcohols
→ methanol phenol → [O]

sodium salt of butanoic acid from an ester *→ something butanoate Hydrolysis → react with NaOH*

trimethylamine from ammonia and alkanes

→ methane + I₂ → C-I 2 NH₃ → NH₂ CH₃

N-ethylethanamide from an alkane and ammonia

*→ ethane → Cl₂ → OH⁻ → [O] → [O] → ethanoic acid + C-I + C-I
→ NH₃ amino ethane*

