

# Unit 1 - Organic Chemistry

- Characteristics of organic compounds
- Identifying and drawing isomers
- General formulas of alkanes, alkenes, alkynes, and cyclic compounds
- Sigma vs. Pi bonding
- Draw and name hydrocarbons that have alkyl substituents
- Aromatic Compounds
- Name and draw the following hydrocarbon derivatives:
  - ⇒ Organic Halides
  - ⇒ Alcohols
  - ⇒ Ethers
  - ⇒ Aldehydes
  - ⇒ Ketones
  - ⇒ Carboxylic Acids
  - ⇒ Esters
- Reactions

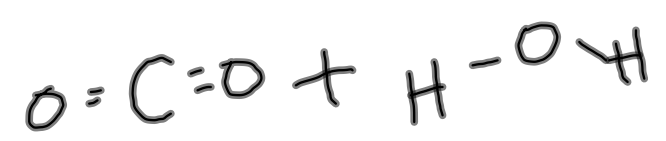
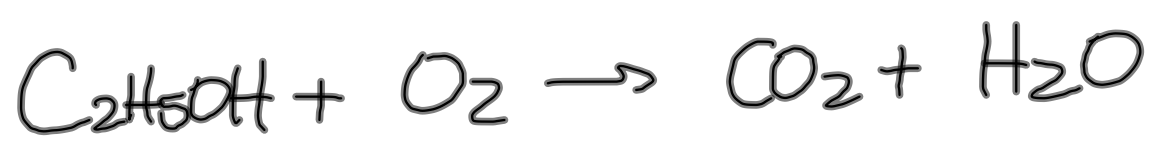


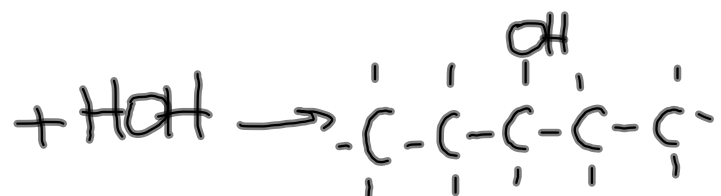
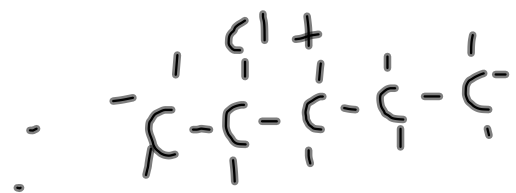
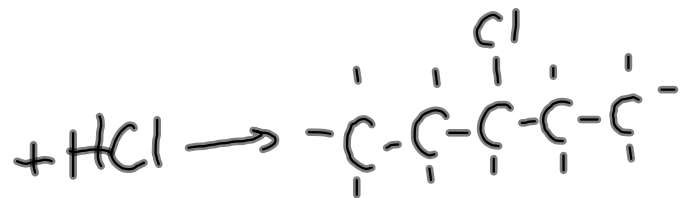
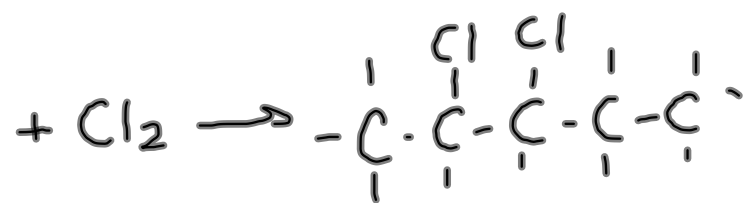
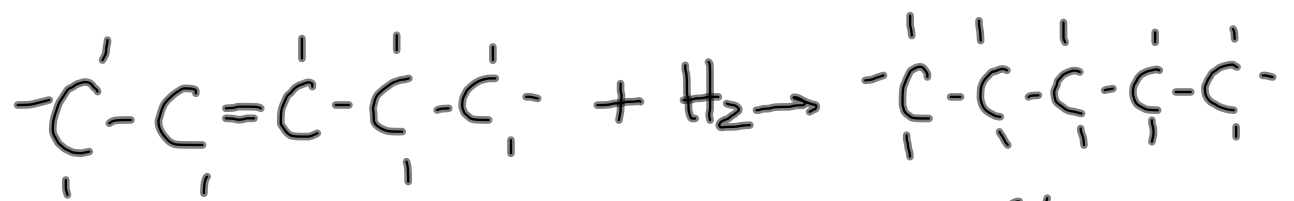
# Reactions

- Cracking (*break into pieces*)
- Reforming (*two small* → *one big*)
- Combustion (*burned, common oxides*)
- Addition (*breaking a pi bond(s)*)
- Substitution (*break a C-H bond and  
replace with halide*)
- Elimination (*adding a pi bond*)
- Esterification  
(*carboxylic acid + alcohol* → *ester*)

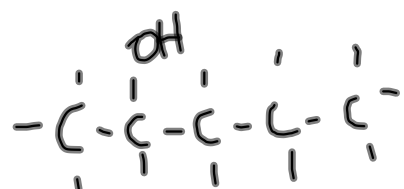


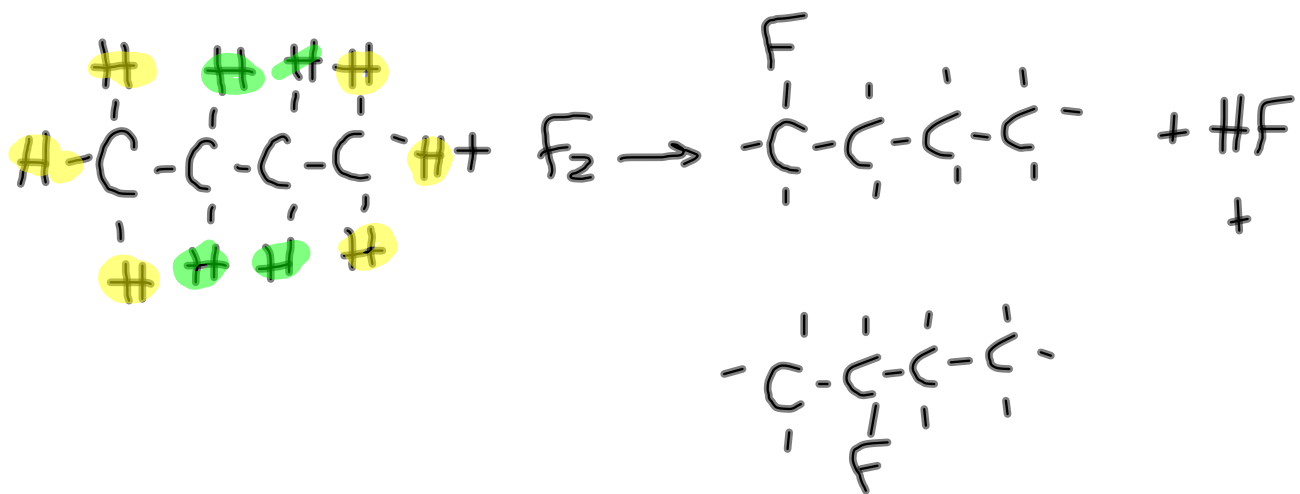


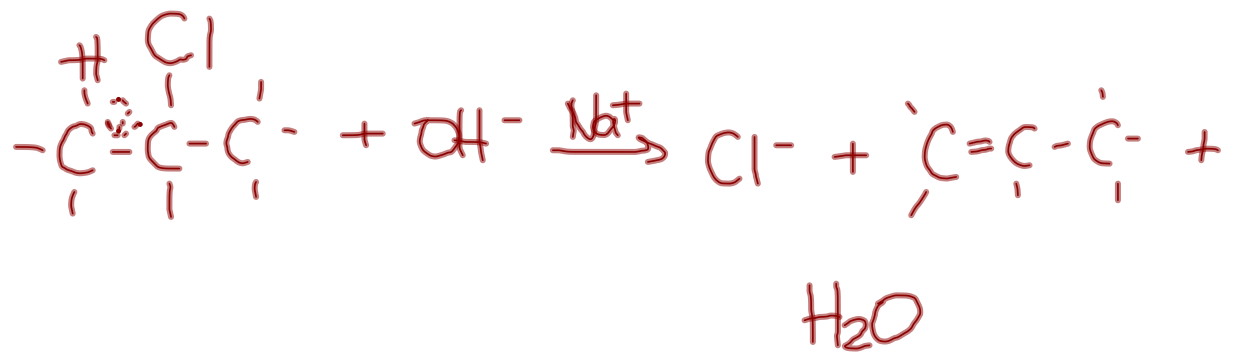




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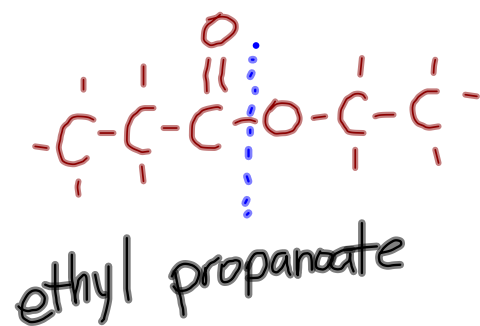
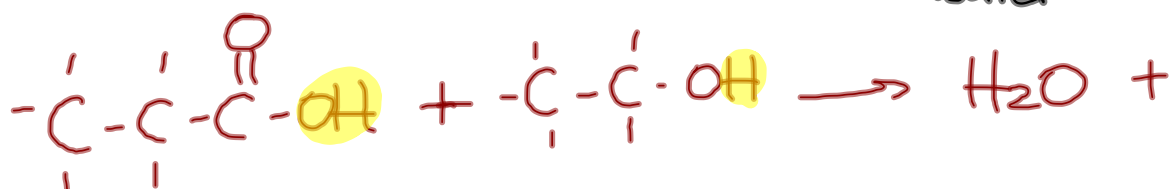




propanoic  
acid

ethanol

water



# **Reactions Worksheet**