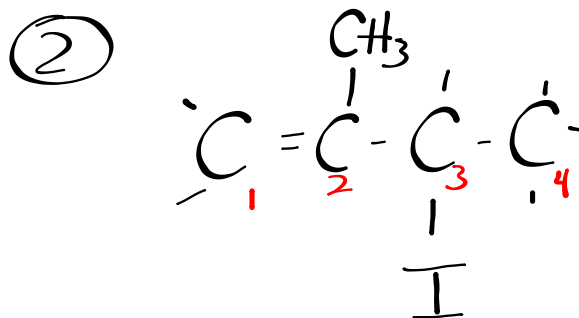
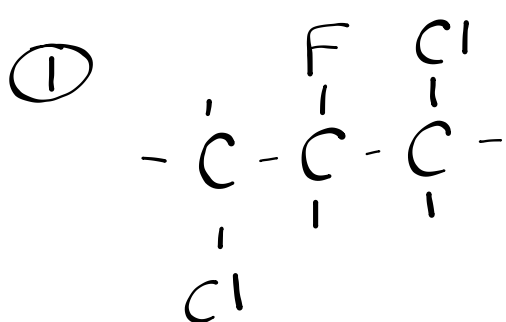


# Warm Up

Name the following molecules:

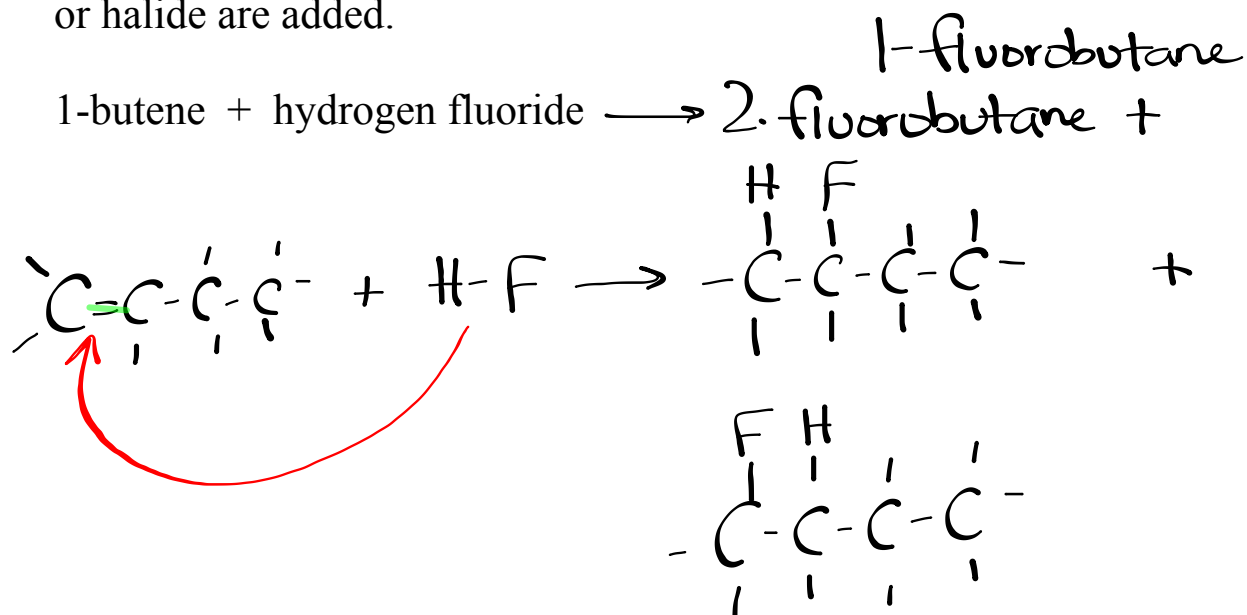


1,3-dichloro-2-fluoropropane

3-iodo-2-methyl-1-butene

## Reaction Types

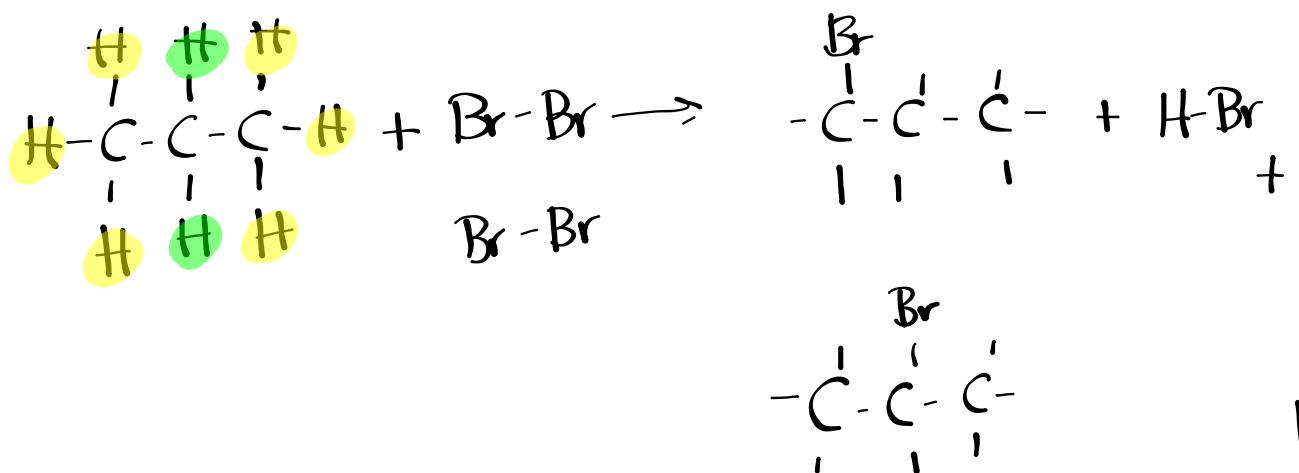
ADDITION- multiple bonds (pi bonds) are broken and hydrogen or halide are added.



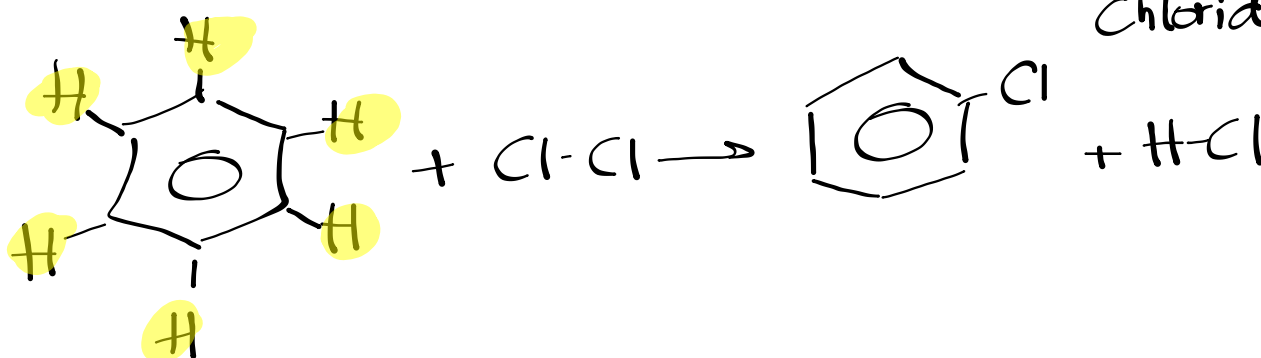
SUBSTITUTION REACTIONS - carbon-hydrogen (sigma bonds) are broken and the hydrogen is replaced with another functional group.

- very difficult reaction; usually occurs in the presence of light

Ex. propane + bromine



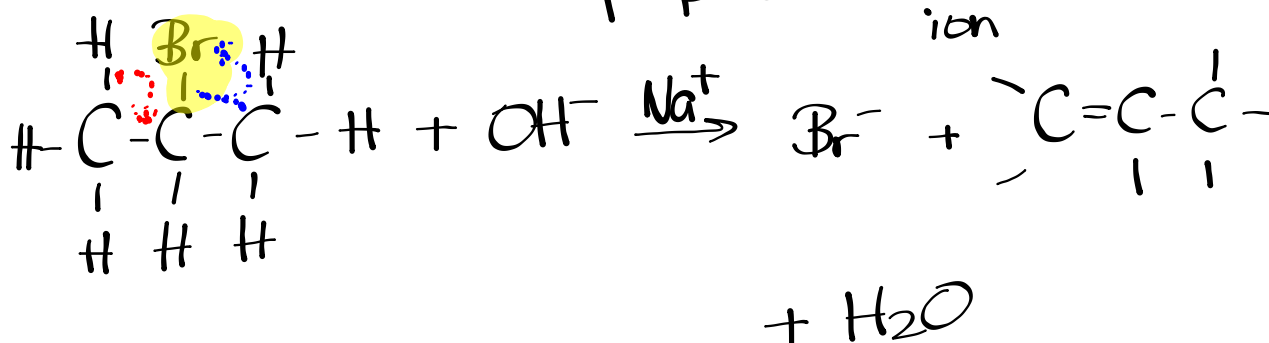
benzene + chlorine  $\rightarrow$  chlorobenzene + hydrogen chloride



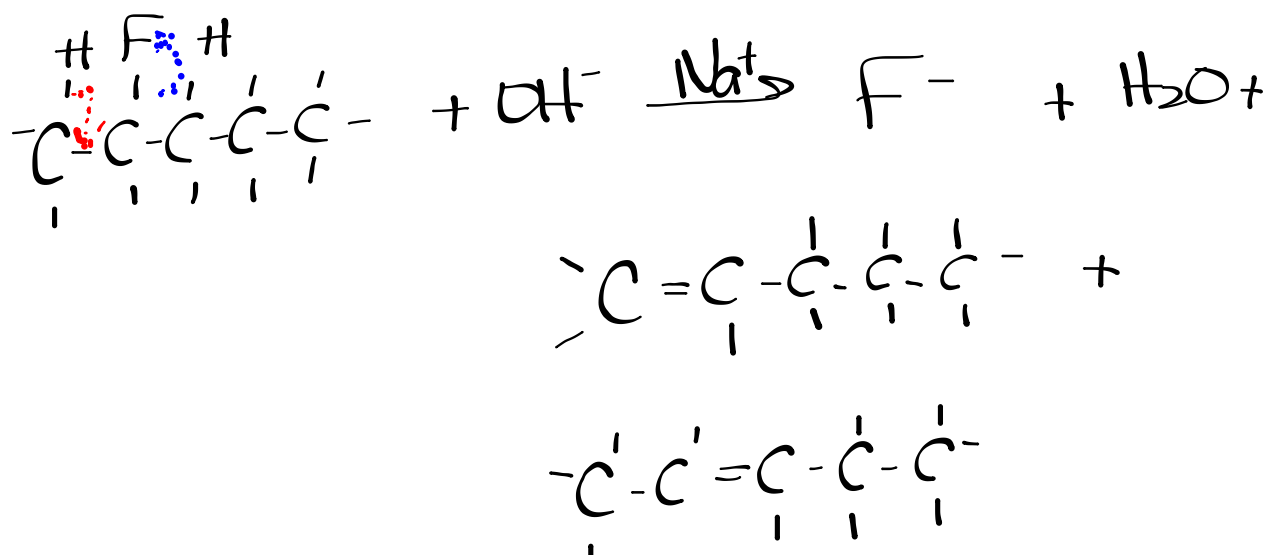
ELIMINATION REACTIONS - carbon-hydrogen and carbon-halide sigma bonds are broken and a multiple bond (pi bond) forms  
 - common method of preparing alkenes

Ex. 2-bromopropane + hydroxide ion  $\longrightarrow$

propene + bromide ion + water



2-fluoropentane + hydroxide ion  $\longrightarrow$



# Homework

## Worksheet