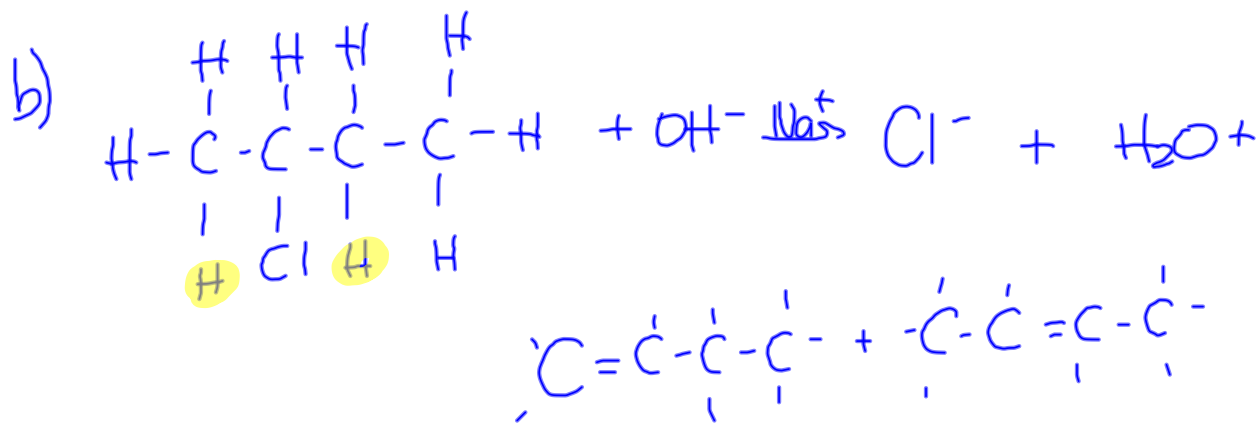
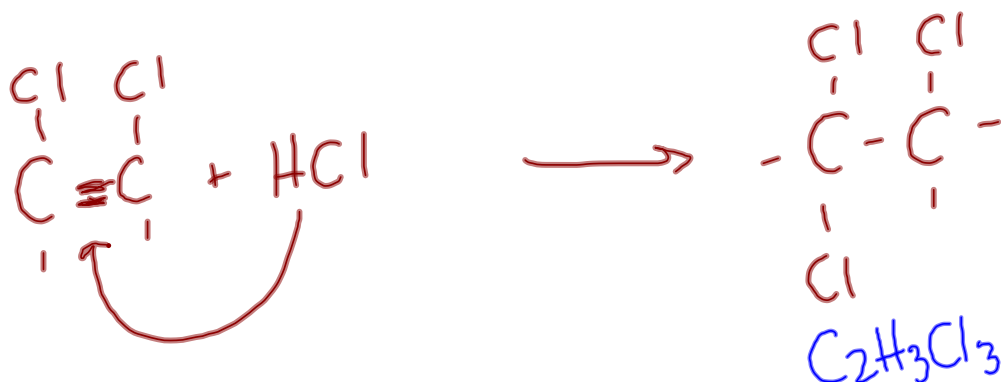
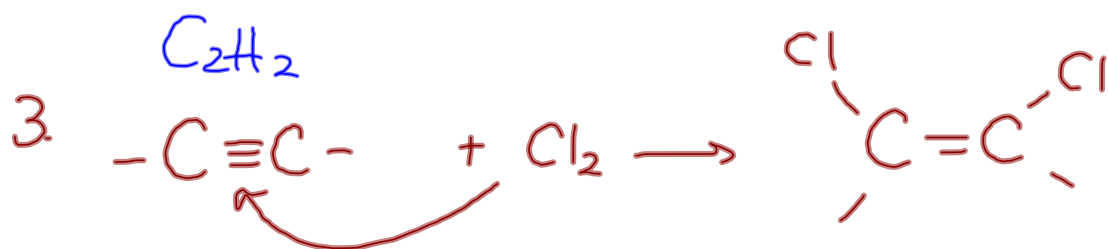


# Organic Halide Worksheet



2-chlorobutane + hydroxide ion  $\rightarrow$  chloride ion + water +

1-butene + 2-butene



# Alcohols

## Alcohols

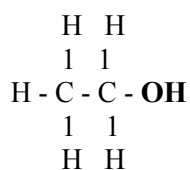
- hydrocarbon derivatives containing a hydroxide (**OH**) functional group



## Naming

When naming alcohols, the -e is dropped from the name of the simple alkane, and it is replaced by an **-ol**.

Ex. ethanol

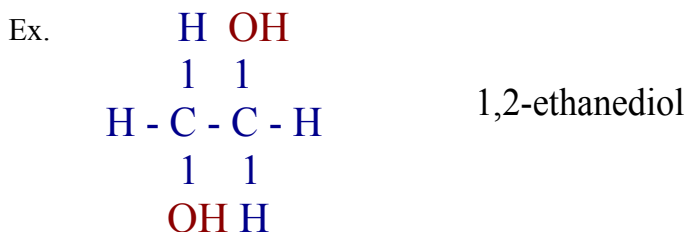


## Methanol

⇒ known as 'wood alcohol'

⇒ used as a fuel...very toxic!

When there are multiple hydroxyl (-OH) groups, the alkane name is given, with the suffix indicating the number of -OH groups.

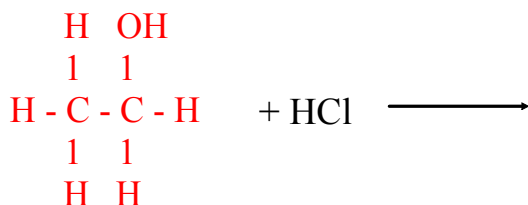


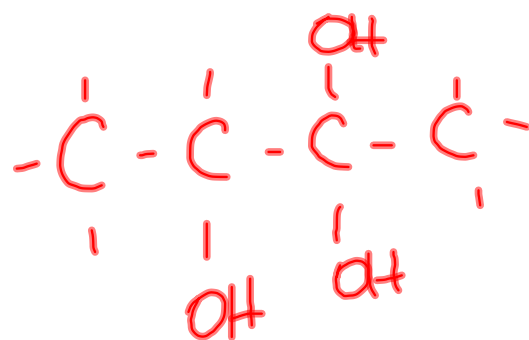
## Reactions

Alcohols undergo **elimination** reactions, eliminating the hydroxyl group and a hydrogen atom.

Ex.

ethanol + acid ⇒





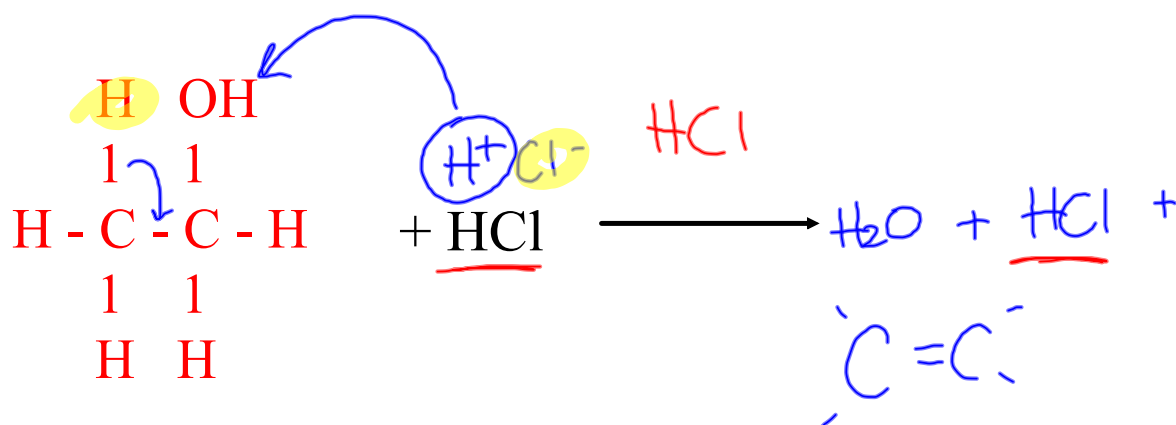
2,2,3-butetriol

## Reactions

Alcohols undergo **elimination** reactions, eliminating the hydroxyl group and a hydrogen atom.

Ex.

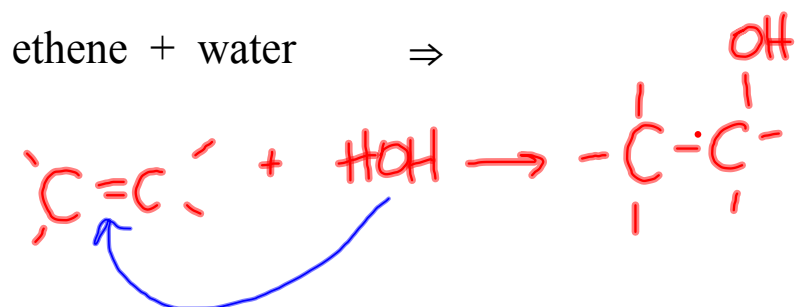
ethanol + acid  $\Rightarrow$



## Reactions

Alcohols can be prepared through **addition (hydration)** reactions, adding water to an alkene

Ex.



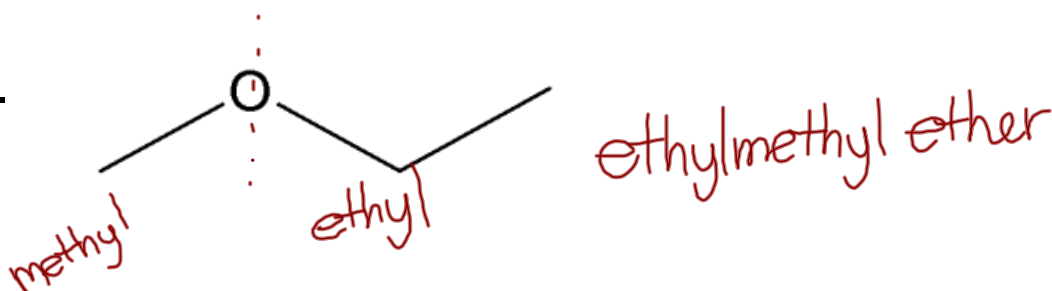
# Ethers

Ethers are organic molecules in which an oxygen is bonded to two carbon groups.

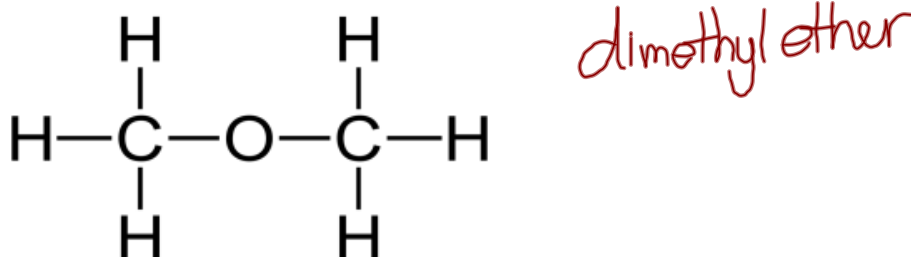


The alkyl groups attached to the oxygen atom are named in alphabetical order and are followed by the word *ether*.

Ex.



Ex.



# **Homework**

## **Worksheet**

**p. 736 #7-12**