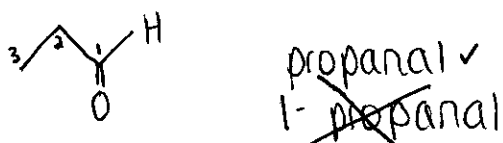
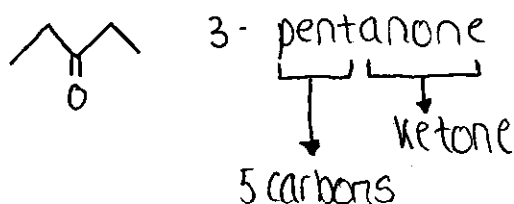
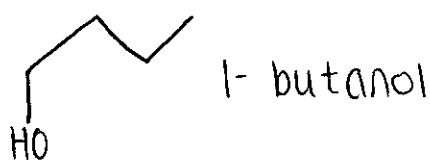
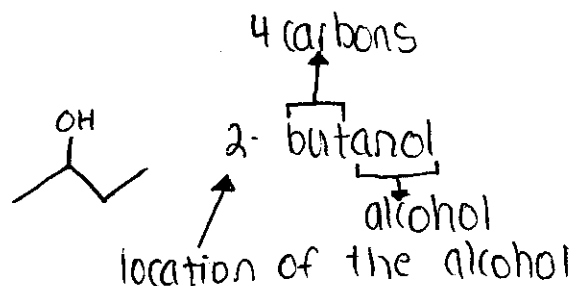
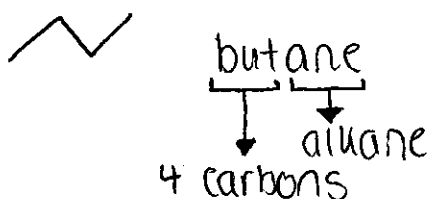
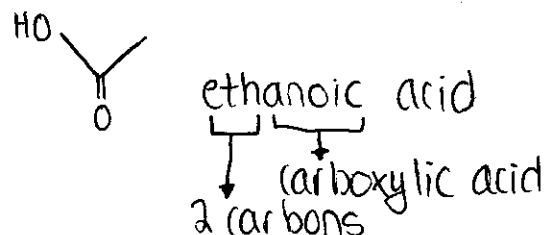


Organic Nomenclature

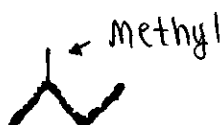
- one name $\leftrightarrow$ one formula
- system grew @#!%?



* aldehydes are always terminal
(also true with carboxylic acids
and esters)

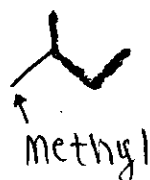


Alkanes with Appendages

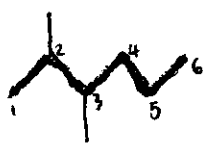


- find principle chain (longest chain)

- lowest number at "first point of difference"



2- methylbutane



2,3 - dimethylhexane

* each appendage gets its own location #

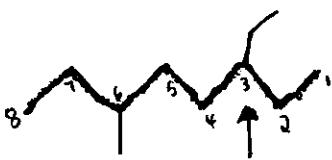


2,2 - dimethylhexane



first point of difference

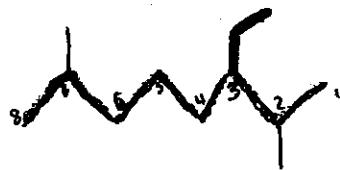
2,5 - dimethylheptane



3 at the larger appendage

3-ethyl-6-methyloctane

alphabetical order

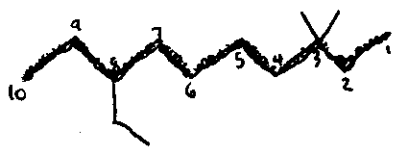


3-ethyl-2,7-dimethyloctane

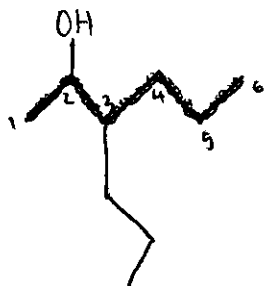
↑
prefix doesn't affect



2,2,7-trimethylnonane

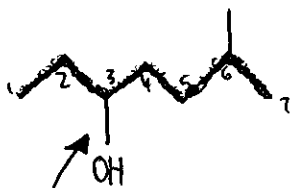


2 methyl beats an ethyl
8-ethyl-3,3-dimethyldecane



- functional groups takes priority over longest chain

3-propyl-2-hexanol
3-n-propylhexane-2-ol



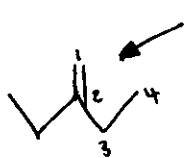
6-methyl-3-heptanol

functional group
takes priority
over point of
difference



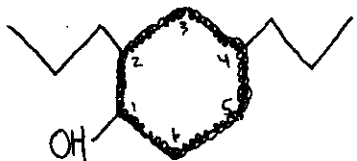
2-hexene

↑
where the alkene starts



alkenes and alkynes,
the main chain must
include both carbons

2-ethyl-1-butene

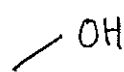


- in a cyclic compound the main chain is the ring
- use a cyclo prefix
2,4-dipropyl-1-cyclohexanol

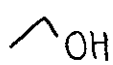
Common Names

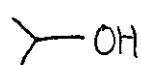
Alkynes $\text{H}-\text{C}\equiv\text{C}-\text{H}$ acetylene * I.U.P.A.C 1-ethyne
or $\equiv$

alcohols

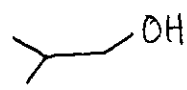
 methyl alcohol
"wood alcohol"

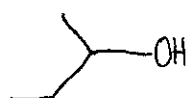
 propyl alcohol

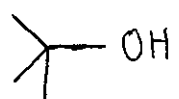
 ethyl alcohol
"booze"

 isopropyl alcohol
"rubbing alcohol"

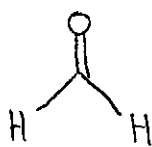
 butyl alcohol

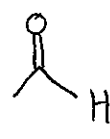
 isobutyl alcohol

 secbutyl alcohol

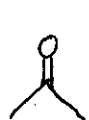
 t-butyl alcohol

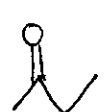
aldehydes

 formaldehyde
"embalming fluid"

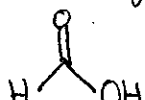
 acetyl aldehyde
"hangover"

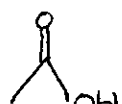
ketones

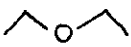
 "acetone"
dimethyl ketone

 ethyl methyl
ketone

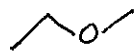
carboxylic acids

 formic acid
"ant and bee stings"

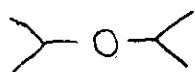
 acetic acid
3-8% solution
makes vinegar

Ether 

"ether"
diethyl ether



ethyl methyl ether



diisopropyl ether

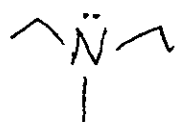


tetrahydrofuran
"THF"

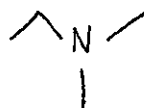


furan

Amines

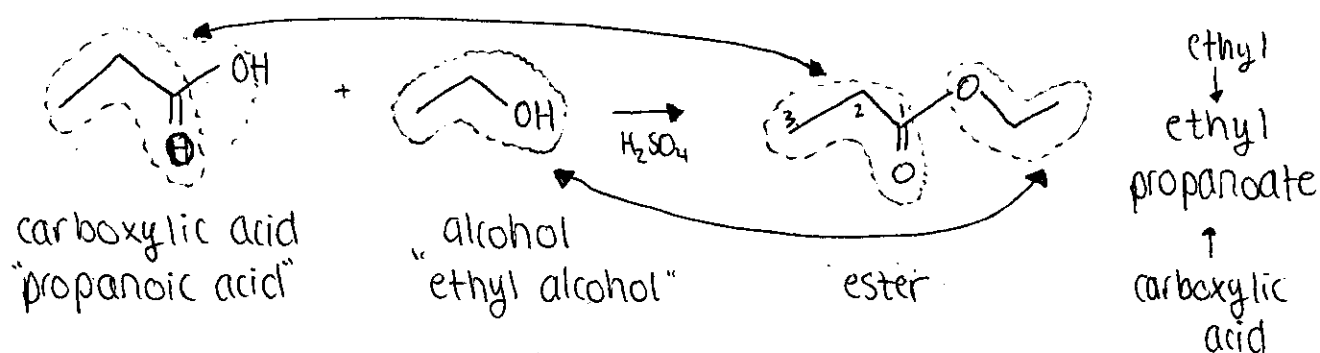


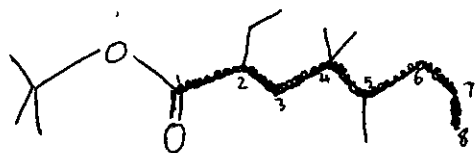
triethyl amine



ethyl dimethyl amine

I.U.P.A.C name for Esters





t-butyl 2-ethyl-4,4,5-trimethyloctanoate
↑
note the
space