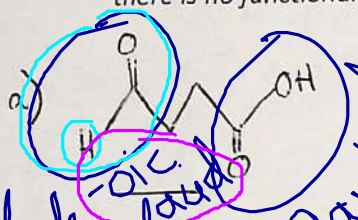
Name: Key Date: _____ Pd: _____

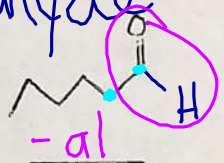
Nomenclature Practice WS #1:

Stereoisomerism	Substituents	Parent Chain	Unsaturation	Functional Group

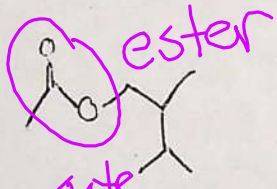
1. For the following molecules, first circle, then label the functional group(s) present. Place the name that would be used for the suffix of the molecule's name on the line below the molecule *(even if there is no functional group, there is still a suffix you would use).*

a) 

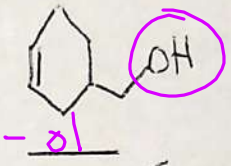
aldehyde ★ carboxylic acid

b) 

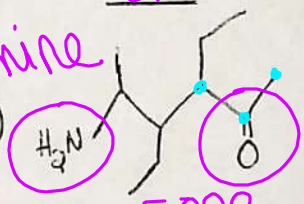
-al aldehyde

c) 

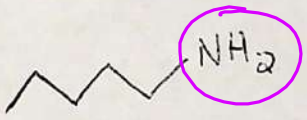
ester
-oate

d) 

alcohol
-ol

e) 

amine ★ ketone
-one

f) 

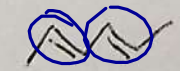
amine
-amine

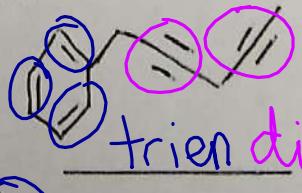
2. For **single** bonds use : an For **double** bonds use: en For **triple** bonds use: yn

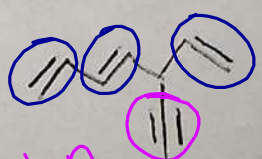
3. The prefixes for multiple double and triple bonds are as follows:

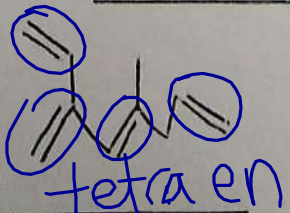
a. 2 = di
b. 3 = tri
★c. 4 = tetra
d. 5 = penta
e. 6 = hexa

4. For the following molecules, write the name for the level of unsaturation. *Make sure to include prefixes for multiple numbers of double and triple bonds.*

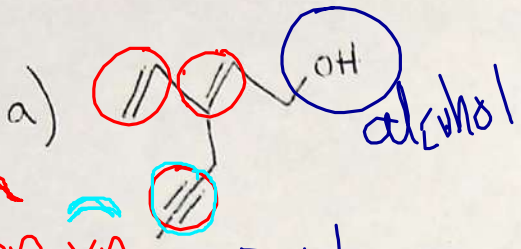
a) 
dien

★list 2x first! c) 
triendiyn

b) 
trienyn

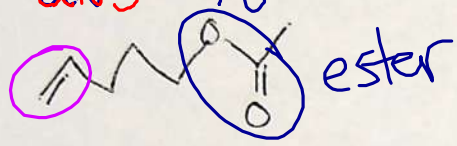
d) 
tetraen

5. **Label** the functional group(s) in each molecule. Place the correct suffix for the functional group on the right line. Place the correct level of unsaturation for single, double, and/or triple bonds on the left line.

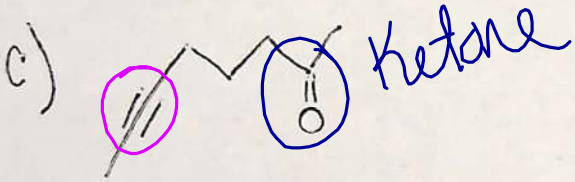
a) 

alcohol

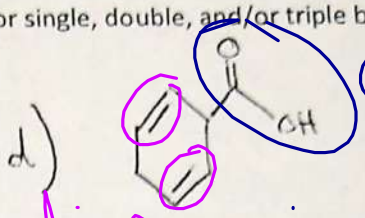
-dien yn — uns — -ol — FG

b) 
ester

en — -oate

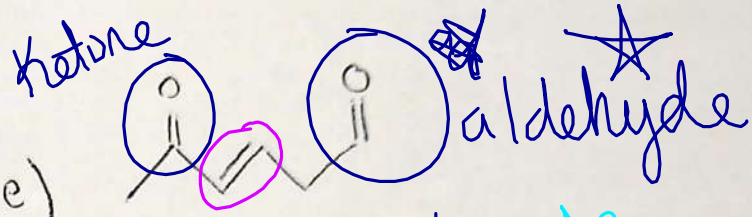
c) 
ketone

yn — -one

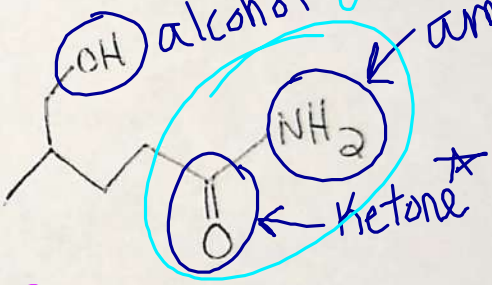
d) 

Carboxylic acid

dien — -oic acid

e) 
ketone — aldehyde

en — -al

f) 

alcohol — amide — amine — ketone

an — -one

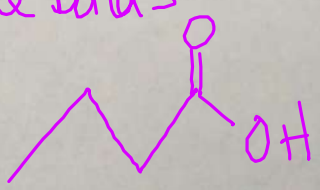
6. Draw a bond-line drawing for a molecule that contains the following functional group(s) and bond types. ✱ be creative!

a) dien al ← aldehyde

2 double bonds

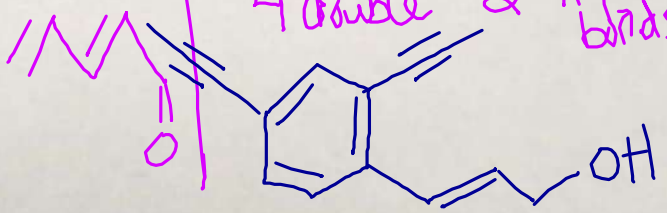
b) an oic acid

single bonds — carboxylic acid



c) tetra en diyn ol ← alcohol

4 double — 2 triple bonds



d) triyn oate ← ester

3 triple bonds