~~9-25-19~~

Key

Session 7: Nomenclature

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1) What are the 3 steps in naming a simple organic structure? ★ could have some variation

① Use the longest continuous carbon chain as the parent chain

② Start numbering the carbons from the side that will assign the lowest #'s to the substituents.

③ Use the # obtained by rule 2 to designate the location of the substituent in the name.

2) What order do you put the substituents in when naming the structure?

Alphabetical order (ignoring any prefixes)

3) If you are given a structure with two substituents that are an equal distance from either end of the parent chain, how do you determine which is given the smaller number?

Whichever one will give you a lower # for the next substituent.

4) What are four special substituents that we need to be able to recognize?

Isopropyl Sec-butyl tert-butyl Isobutyl

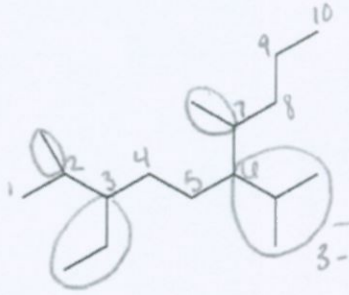
5) If there are two chains of equal length competing to be the parent chain, which one should you choose?

Choose the one with the greater # of substituents.

~~8-25-19~~

6) Name the following compounds:

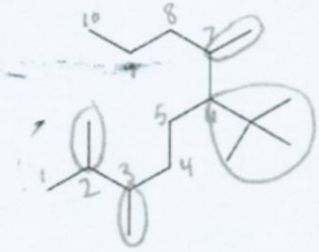
a)



Methyl : 2
Ethyl : 1
Isopropyl

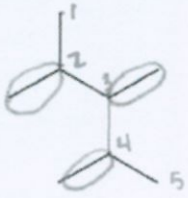
3-ethyl-2,7-dimethyl-6-isopropyldecane

b)



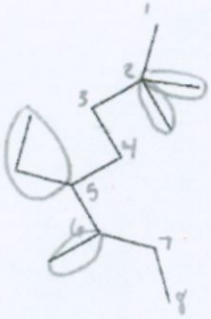
2,3,7-trimethyl-6-tert-butyldecane

c)



2,3,4-trimethylpentane

d)



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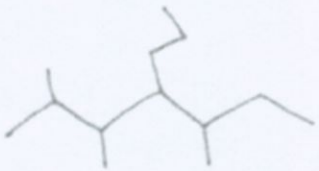
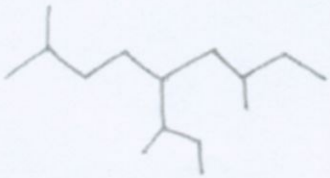
5-ethyl-2,2,6-trimethyloctane

7) Construct the organic structures given the names.

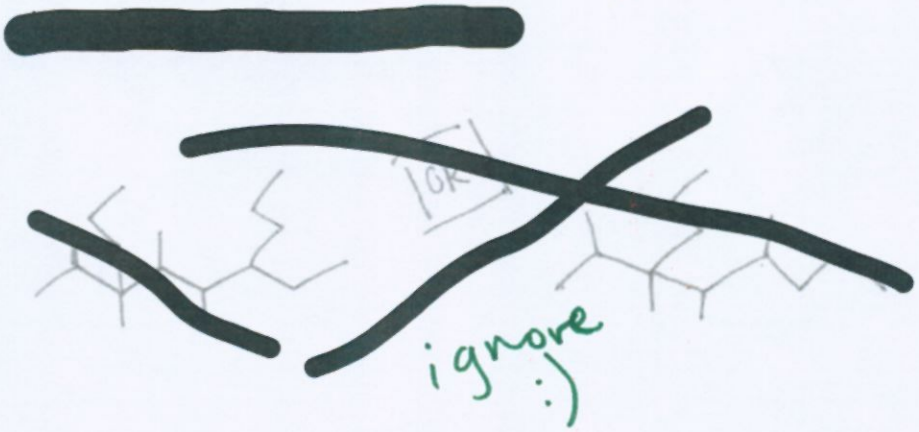
a) 2,3,5-trimethyl-4-propylheptane



b) 5-sec-butyl-2,7-dimethylnonane



There's many different ways that these can be drawn



d) 7-ethyl-2,2-dimethyl-4-propylnonane