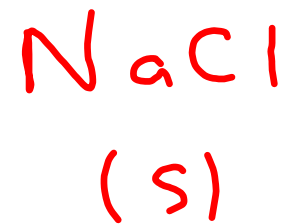


1. $\text{pH} = 4.1$

2. $x = .181 \text{ N}$

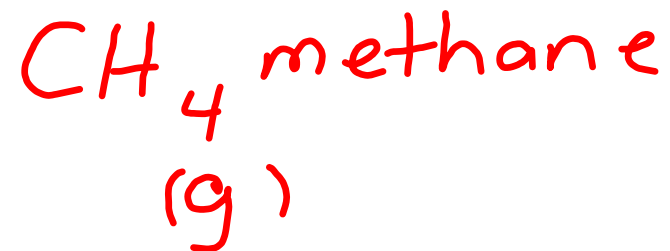
$x = .0905 \text{ M}$

inorganic



ionic bonding
↑ mp and bp
hard to burn
Soluble in H_2O

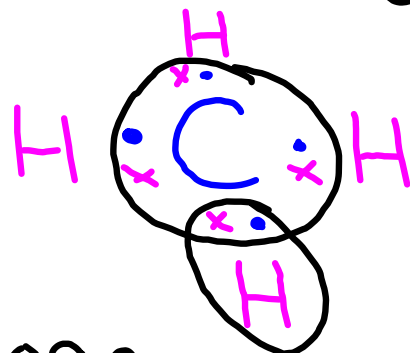
organic



covalent bonds
↓ mp and bp
easy to burn
insoluble in H_2O

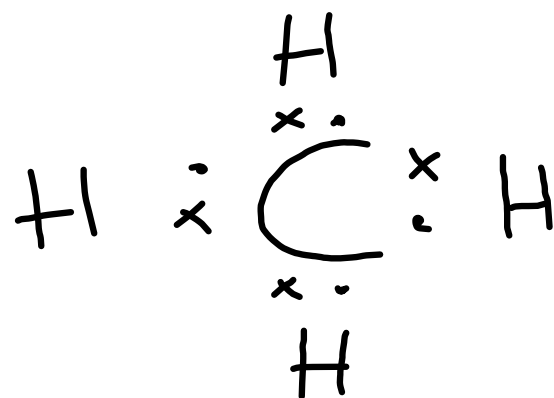
C 4 valence e⁻s

H 1 valence e⁻

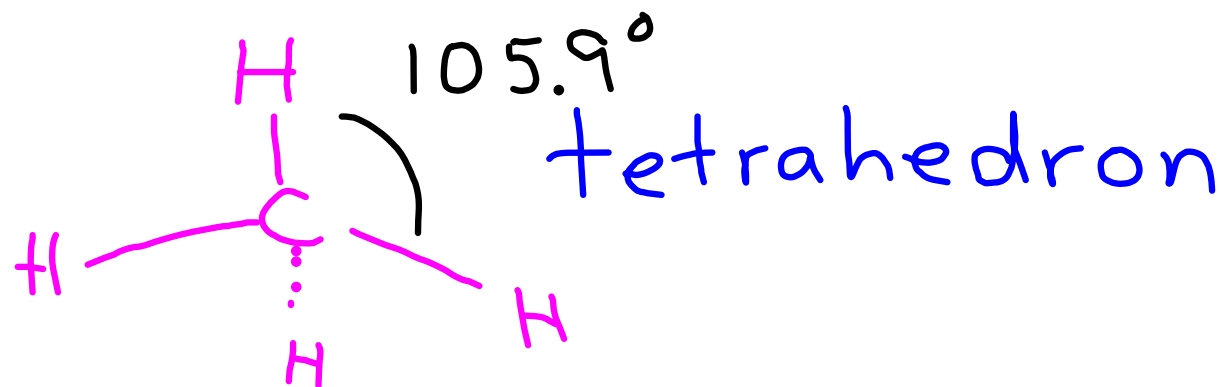
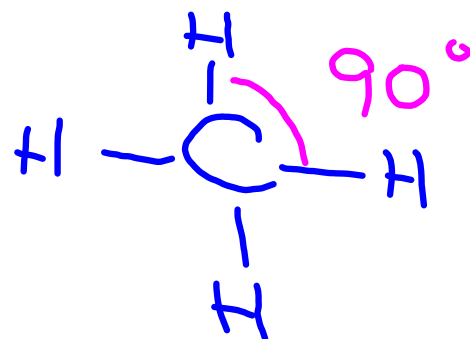


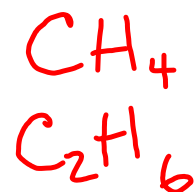
Hydrogens are known as a
Stopper in a carbon chain

Carbons can be bonded with
each other.

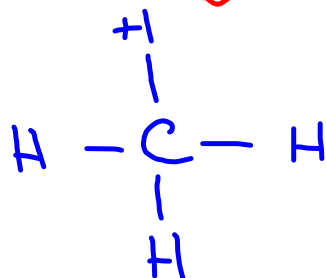


Dot
Structure

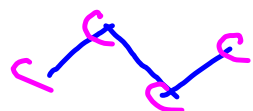
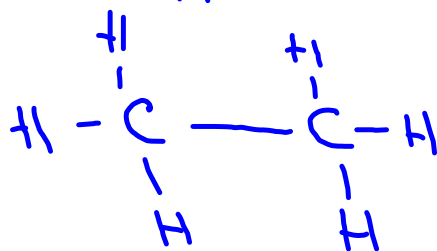




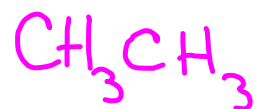
molecular formulas



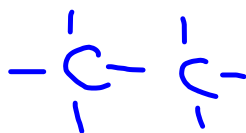
Structural
formulas



each carbon has 4
bonds



condensed formula



Alkanes - all single bonded Carbons

1 meth

2 eth

3 prop

4 but

5 pent

6 hex

7 hept

8 oct

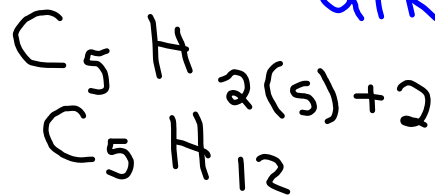
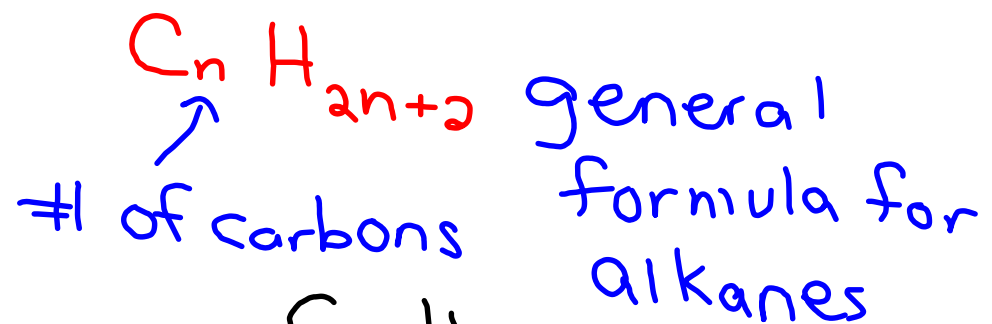
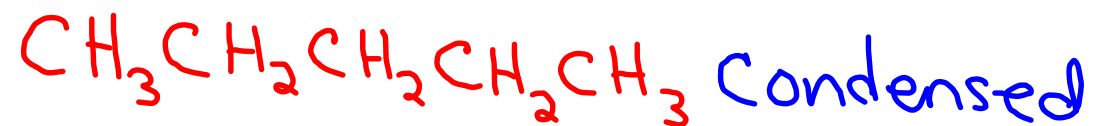
9 non

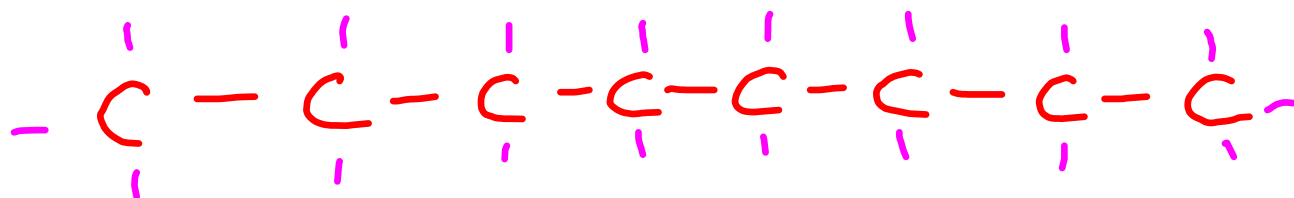
10 deca

(prefix)

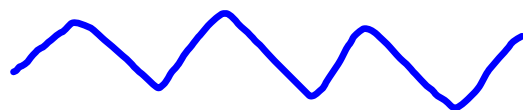
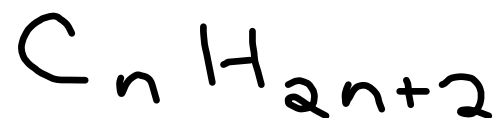


pentane





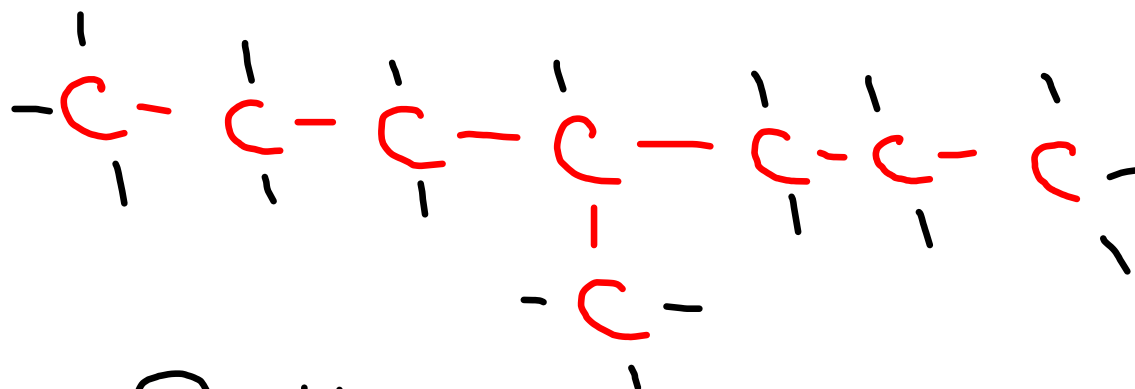
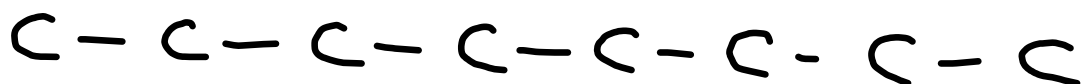
Octane



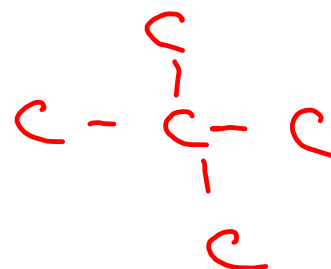
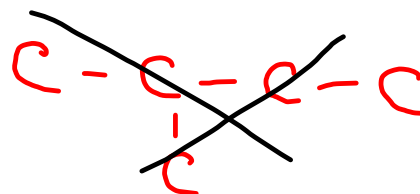
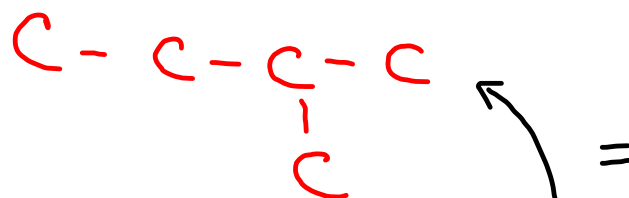
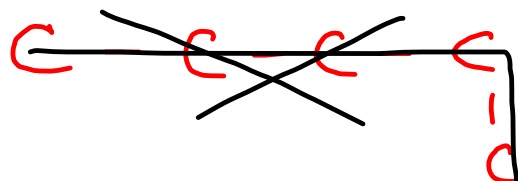
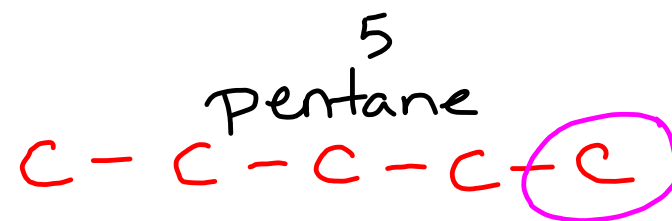
Carbon backbone

P 411

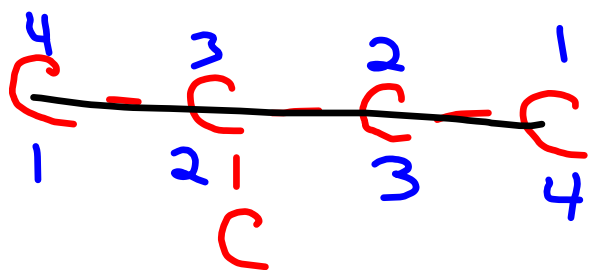
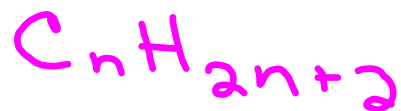
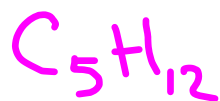
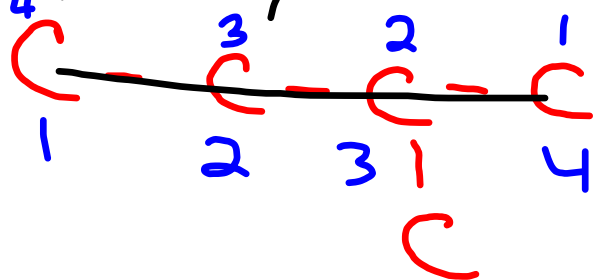
11.1 11.5 11.7



isomers - same # of C's
and H's but built differently
and having a different
name.

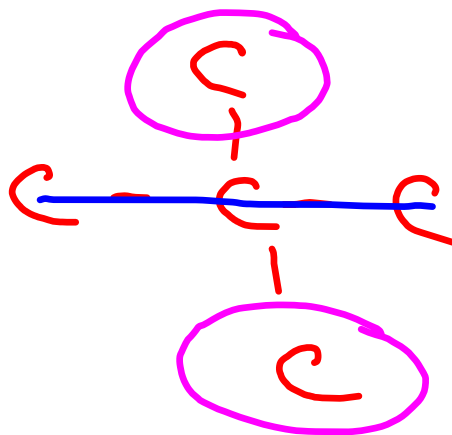
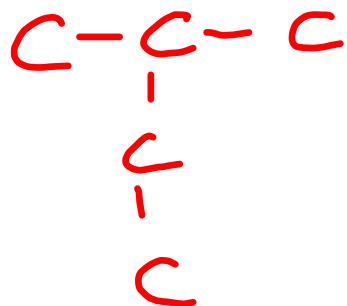


2-methyl butane



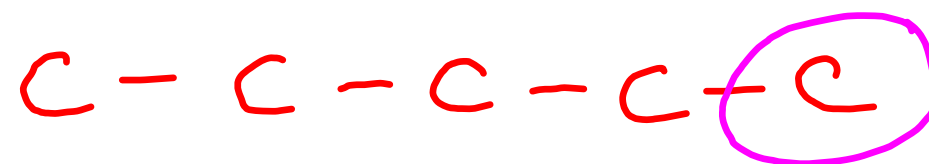
either
one
is the
isomer
of
pentane

2-methyl butane
1 + 4 = 5



2,2- dimethylpropane

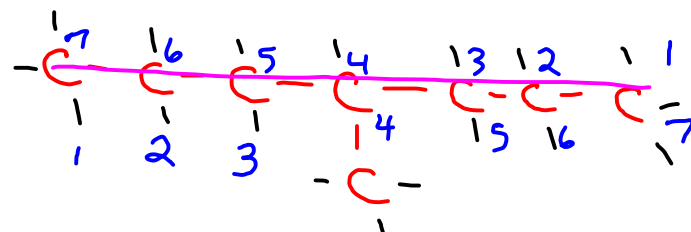
$$1 + 1 + 3 = 5$$



pentane



- ① has to have same molecular formula
- ② Has to have a different name.
- ③ General formula stays the same
- ④ Must have a different Structure.



- ① Find the longest chain w/o picking up your pencil or doubling back over a previous line.

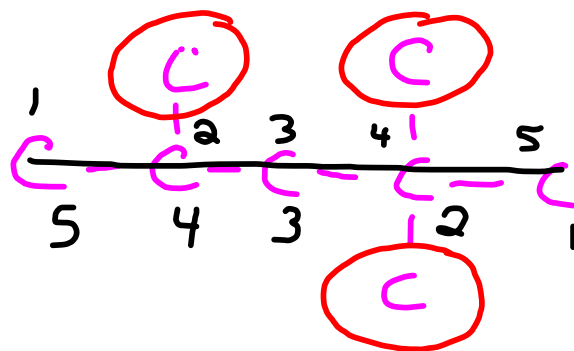
heptane

- ② Find the branches and name them. methyl heptane

- ③ If more than one group has the same name, use di, tri, tetra, penta

- ④ Number main chain such that the one with the most # of branches or largest in mass gets the lowest #.

4-methyl heptane



2,2,4-trimethylpentane

3C

5C

2,2,4

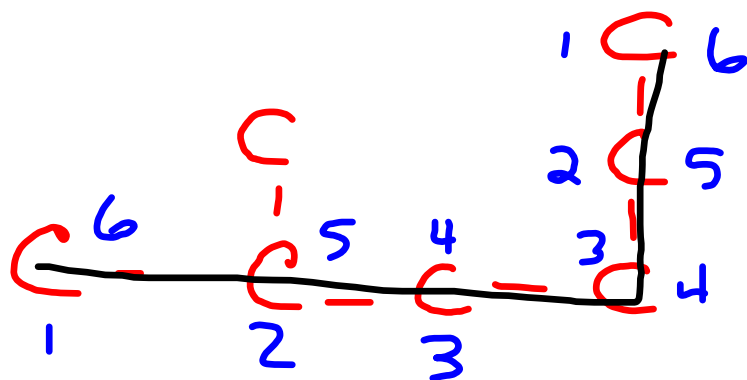
8 carbons

2,4,4

C_8H_{18}



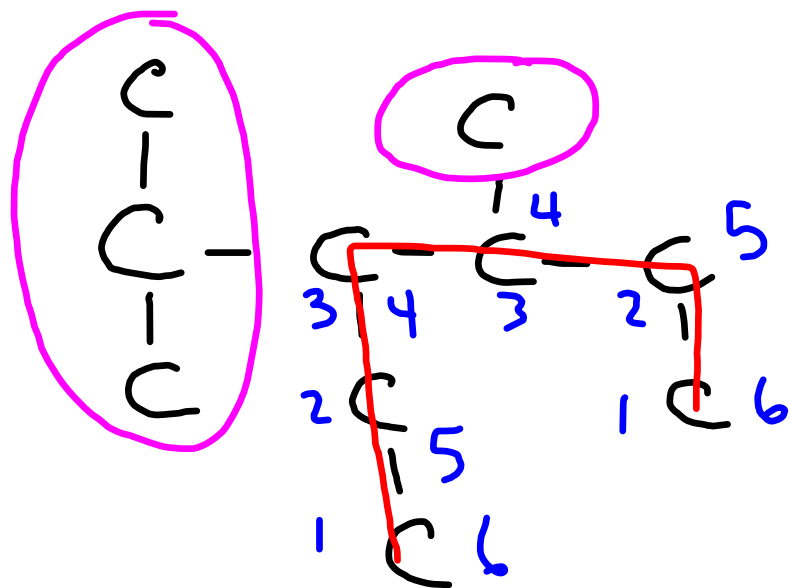
isomer of octane.



2-methylhexane

25
 $(1) + (6) = 7$

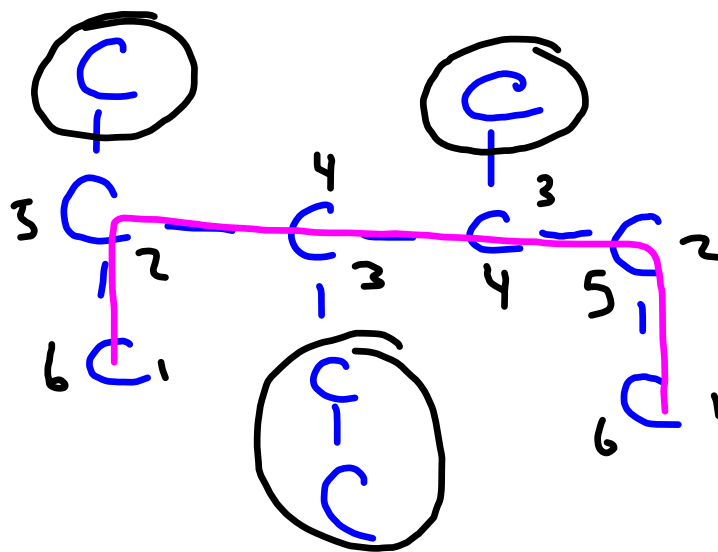
isomer of heptane



3-isopropyl-4-methyl hexane

4
3

3
4



3-ethyl-2,4-dimethyl hexane

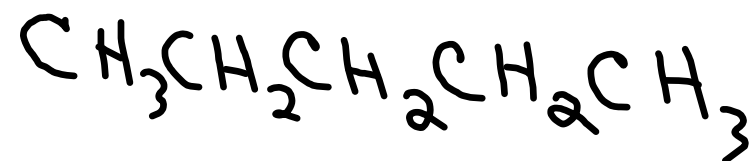
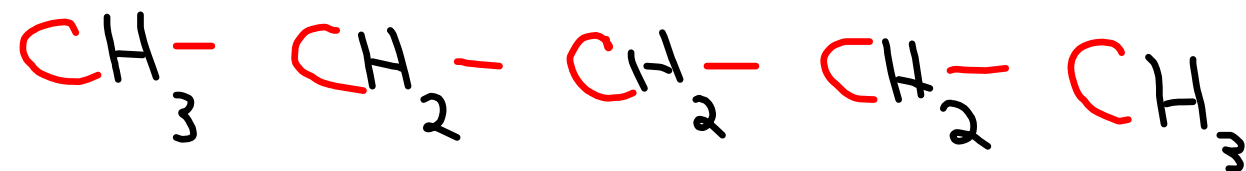
3
4

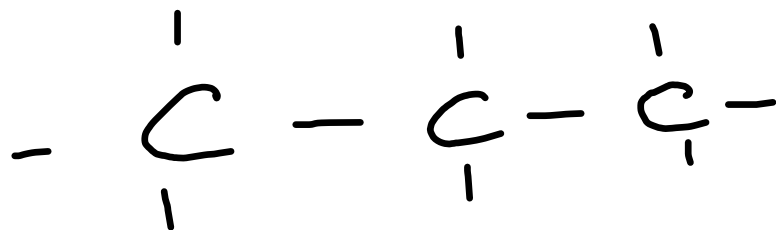
2, 4
3, 5

p 415

11.9, 11.11 a.b.c. ~~d~~

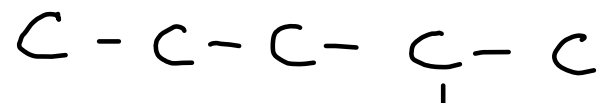
11.13 a.b.c. ~~d~~



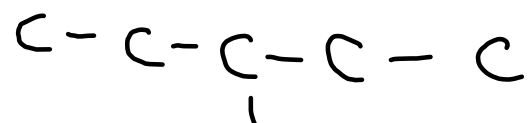




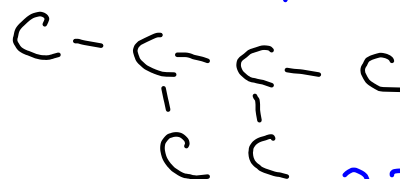
hexane



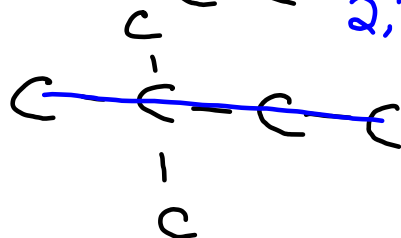
2-methylpentane



3-methylpentane

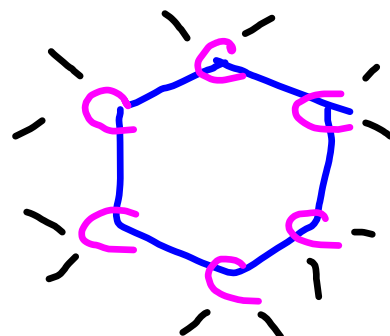


2,3-dimethylbutane

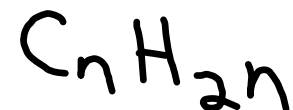
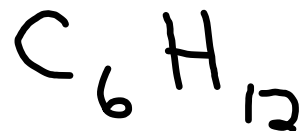


2,2-dimethylbutane

Cyclo

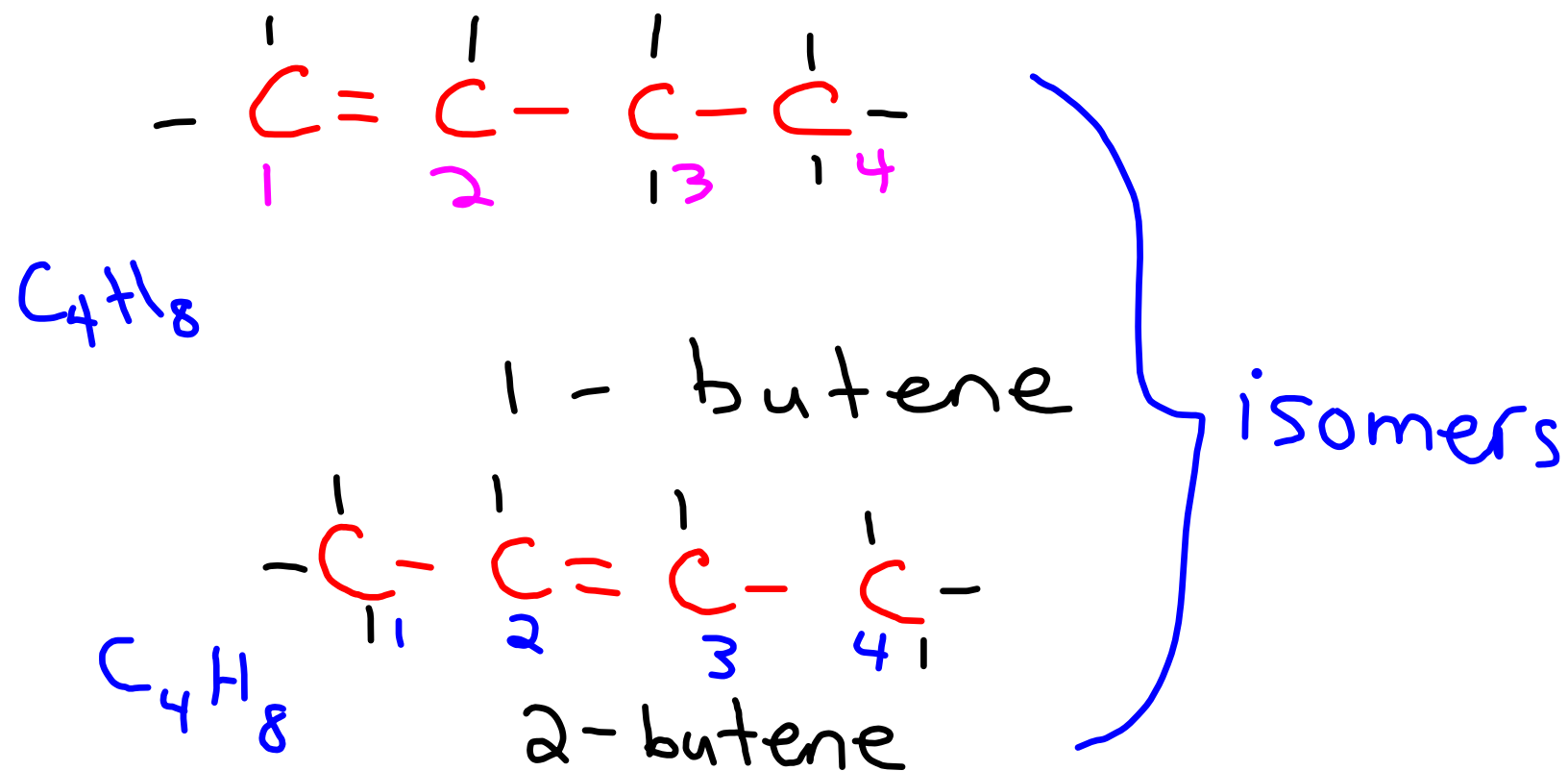


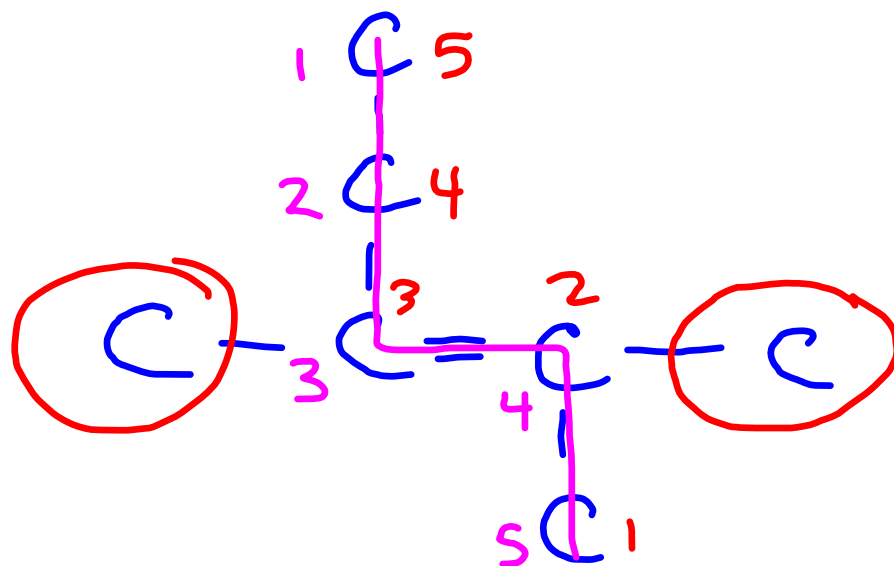
cyclohexane



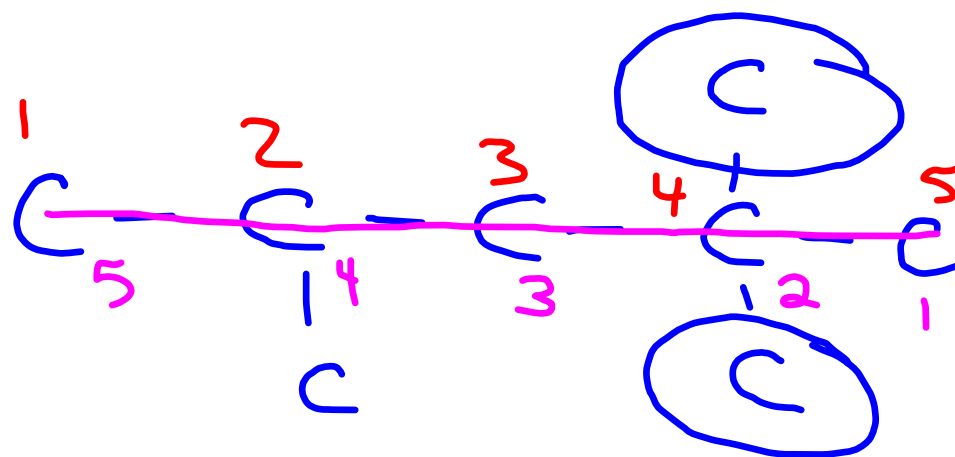
alkenes - double bond in the main chain. Must put the double bond at the lowest #.

General Formula C_nH_{2n}





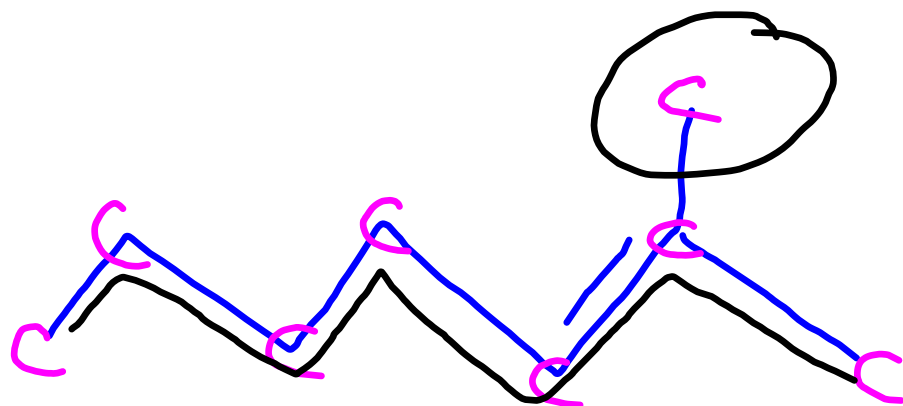
2,3-dimethyl-2-pentene
 1 + 1 ↑ 5 = 7
 place of =
 bond



2,2,4-trimethylpentane

$$3 + 5 = 8$$

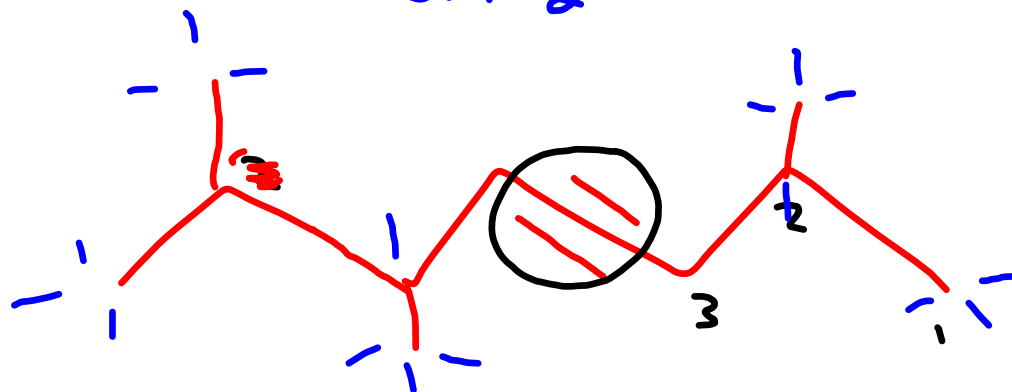
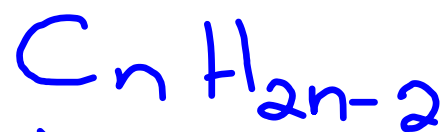
2,4,4



2 methyl-2-heptene



alkynes - triple bond



2,5,6-trimethyl-3-heptyne

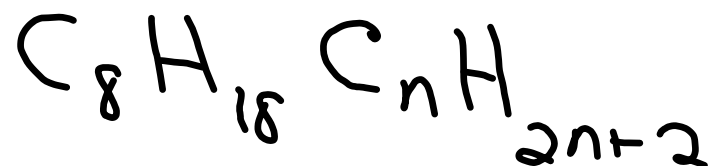
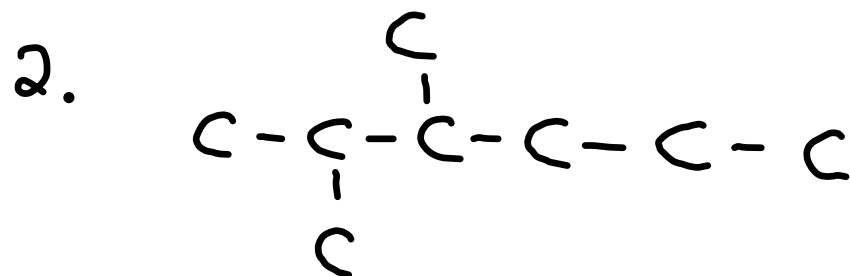
$$3 + 7 = 10$$



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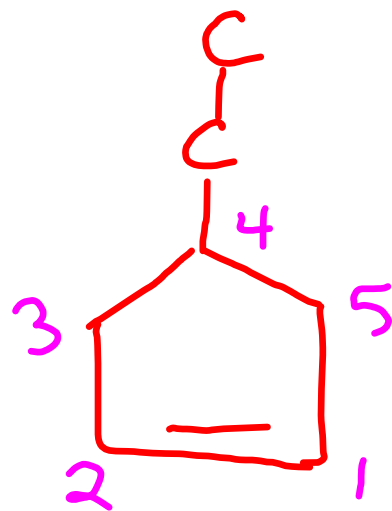
12.1 , 12.3 ~~Ø~~

1. 3-methyl pentane



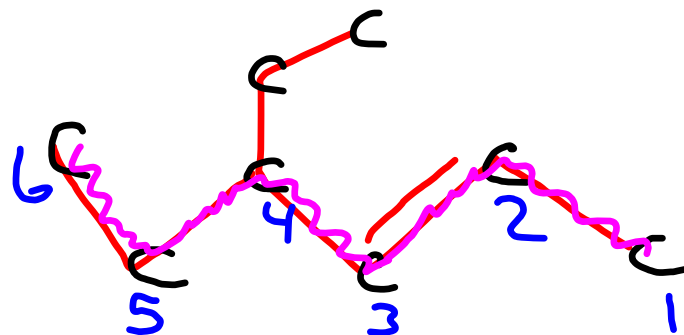
12.3

e.



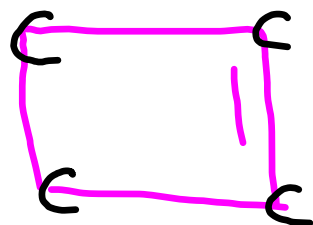
4-ethyl cyclo-1-pentene

12.3
f.



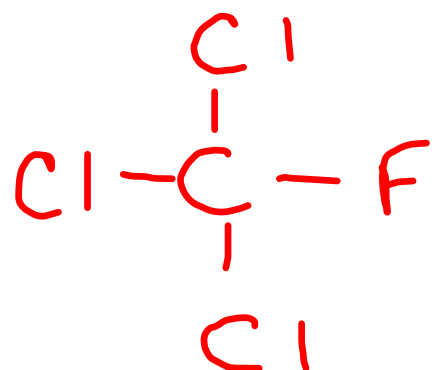
4-ethyl-2-hexene

d.

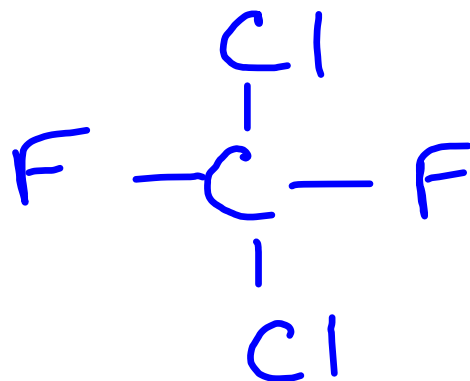


Cyclobutene

F	Fluoro
Cl	Chloro
Br	Bromo
I	Iodo

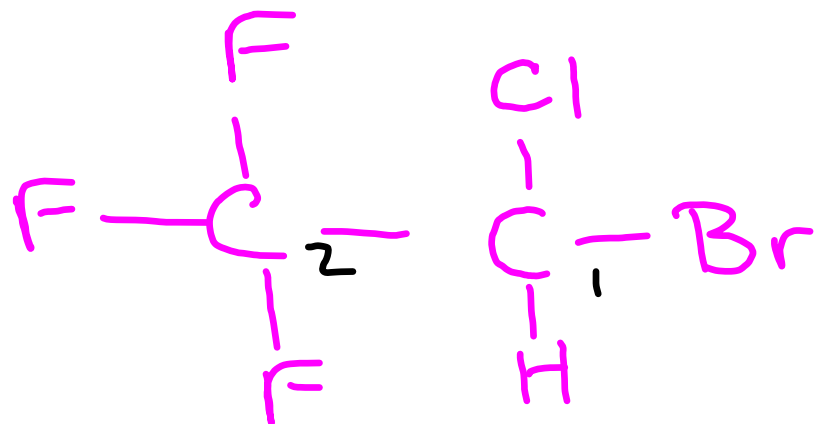


trichloro-fluoromethane
Freon 11



dichloro-difluoromethane
heavier one name first.

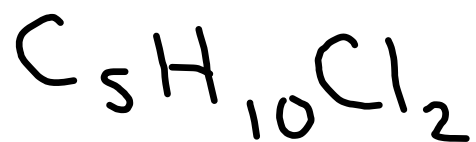
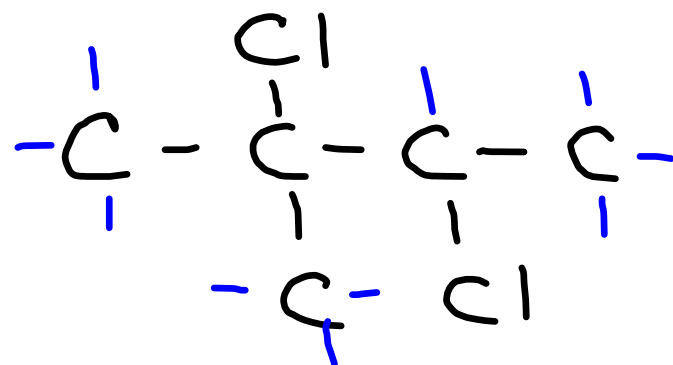
Freon 12



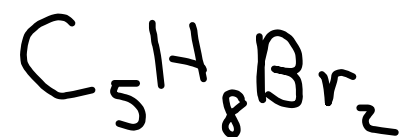
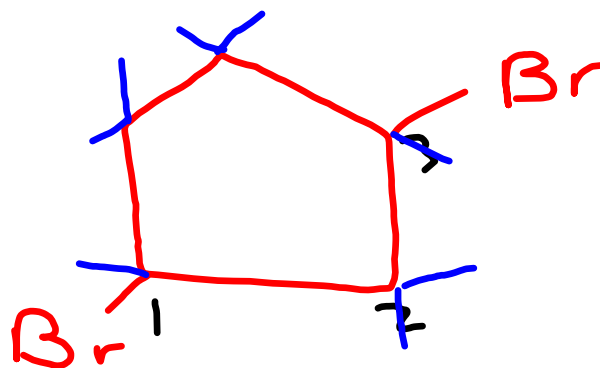
1-bromo - 1-chloro - 2,2,2-trifluoro
ethane

Halothane

2,3-dichloro-2-methyl butane



1,3-dibromocyclopentane



p 421

11.15, 11.17, 11.19,
11.21, 11.27