

Name: _____

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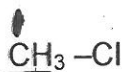
Chemistry 11
Organic Chemistry
Lesson #3 NAMING MULTIPLE BOND STRUCTURES

Members of the HALOGEN FAMILY can also be added to organic compounds. Because Halogens have a combining capacity of one they form a single bond to attach itself to the compound.

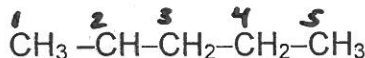
RULES for naming attached halogens:

1. change the "ine" ending to "o" i.e. fluoro, chloro, bromo
2. number to indicate the carbon it is attached to
3. when more than one of the same are present, use latin prefix
4. list all attached groups alphabetically
5. give the lowest possible address to the FIRST ATTACHED GROUP

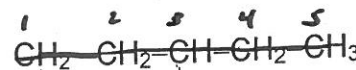
Example 1: Name the following



chloromethane



2-fluoropentane



1-bromo-3-ethyl pentane.

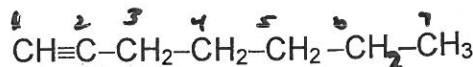
RULES FOR NAMING ORGANIC COMPOUNDS WITH MULTIPLE BONDS

1. if at least one double bond present, change "ANE" to "ENE"
2. if at least one triple bond present, change "ANE" to "YNE"
3. give lowest possible address to the BOND
- * 4. the number goes directly in front of the parent name followed by a dash

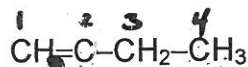
Example 2: Name the following:



2-hexene



1-heptyne



2-methyl-1-butene

HOMEWORK: Exercises 17 + 18

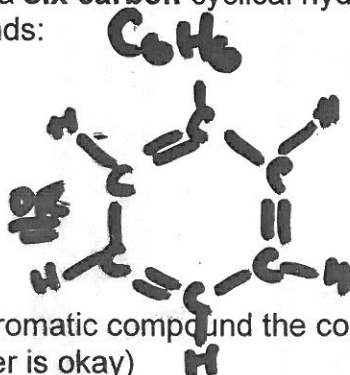
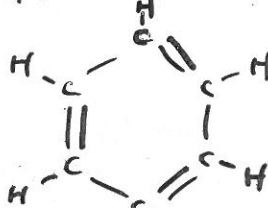
+ 22, 23 + 24 a, b, d, e

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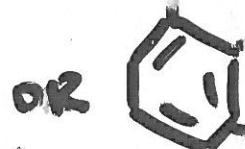
Chemistry 11
Organic Chemistry
Lesson #3 NAMING AROMATIC COMPOUNDS

A BENZENE RING is a **six carbon** cyclical hydrocarbon that contains three alternating double bonds:

Expanded structure:



Skeletal Structure:

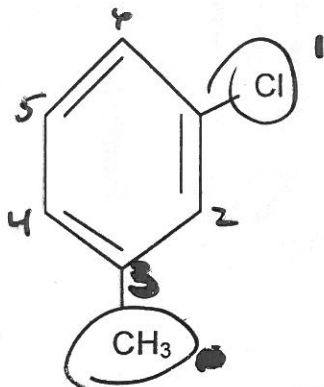


When illustrating an aromatic compound the convention is to use the skeletal structure (though either is okay)

RULES for naming Aromatic compounds:

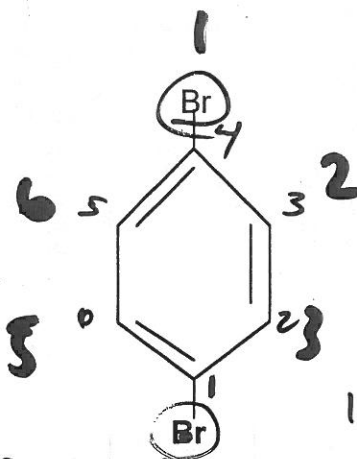
1. No need to indicate position of SINGLE ATTACHMENT
 2. If more than one is present the position #1 is given to the
 3. alphabetically dominant, give the rest the lowest possible
 4. address.
- Use the parent name benzene.

Example 3: Name the following



1-chloro-3-methyl benzene

HOMEWORK: Exercises 22, 23, 24 a,b,d,e,30 + 31



1,4-dibromobenzene