# Chemistry 11 Organic Chemistry III

Name: Date: Block:

- 1. Cycloalkanes
- 2. Aromatic Rings

# Cycloalkanes

becomes

• General Formula:

# of C Atoms	Prefix	Cycloalkane	Formula
1	Meth-		
2	Eth-		
3	Prop-		
4	But-		
5	Pent-		
6	Hex-		
7	Hept-		
8	Oct-		
9	Non-		
10	Dec-		

# **Steps to Naming Cycloalkanes:**

1. The ring that contains the greatest number of carbon atoms is the \_\_\_\_\_

ullet

Parent Chain = 
$$H_3C$$
  $CH_2CH_3$ 

2. The carbon atoms are numbered either clockwise or counter-clockwise.

•

4.

3.

If the ring structure is not the longest continuous carbon chain, then it is named as a branch with prefix "cyclo" and ends in "yl."  $\frac{1}{2}$ 

Parent:

Branch:

Compound:

#### Practice #1.

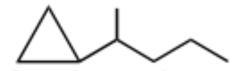
- 1. Parent Chain.
- 2. Number the parent chain.
- 3. Name the branches.
- 4. Name the compound

#### Practice #2.

- 1. Parent Chain.
- 2. Number the parent chain.
- 3. Name the branches.
- 4. Name the compound

#### Practice #3.

1. Parent Chain.



2. Number the parent chain.

3. Name the branches.

4. Name the compound

#### **Complete worksheet on Cycloalkanes**

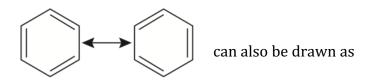
#### **Aromatic Rings**

• An aromatic hydrocarbon, or \_\_\_\_\_\_, is a hydrocarbon with six carbon atoms in a ring

• It has the molecular formula \_\_\_\_\_

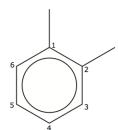
• The electrons in a benzene molecule are spread out across multiple atoms, so there is more than one way to draw its Lewis structure

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#### **Steps to Naming Aromatic Rings:**

• Same as other naming procedures! Except... parent chain is called:



## Some organic compounds have benzene as a branch.

## In this case, the branch name is "\_\_\_\_\_

#### Practice #1.

- 1. Parent Chain.
- 2. Number the parent chain.
- 3. Name the branches.
- 4. Name the compound

#### Practice #2.

- 1. Parent Chain.
- 2. Number the parent chain.
- 3. Name the branches.
- 4. Name the compound

#### Practice #3.

- 1. Parent Chain. (remember alkene and alkyne will be main parent chain)
- 2. Number the parent chain.
- 3. Name the branches.
- 4. Name the compound

$$C = C$$

#### **Complete worksheet on Aromatic Hydrocarbons**