

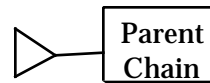
Cycloalkanes



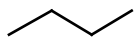
Propane



Cyclopropane



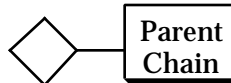
cyclopropyl



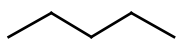
Butane



Cyclobutane



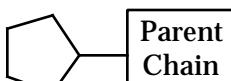
Cyclobutyl



Pentane



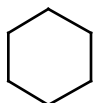
Cyclopentane



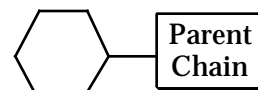
Cyclopentyl



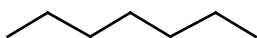
Hexane



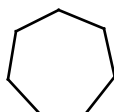
Cyclohexane



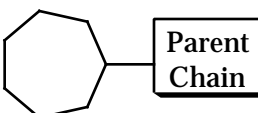
Cyclohexyl



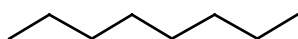
Heptane



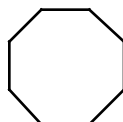
Cycloheptane



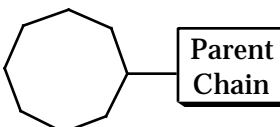
Cycloheptyl



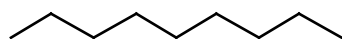
Octane



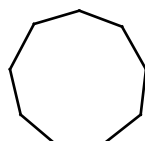
Cyclooctane



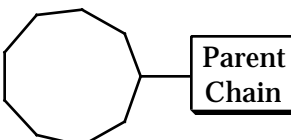
Cyclooctyl



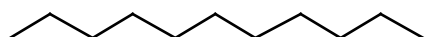
Nonane



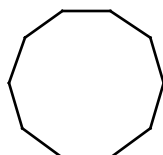
Cyclononane



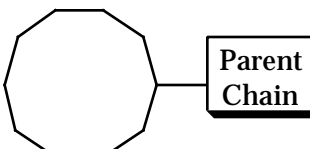
Cyclononyl



Decane



Cyclodecane

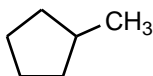


Cyclodecyl

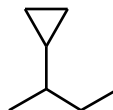
Naming Cycloalkanes

General Formula: $C_nH(2n)$

- Parent Chain*
 - Use the cycloalkane as the parent chain if it has a greater number of carbons than any alkyl substituent.
 - If an alkyl chain off the cycloalkane has a greater number of carbons, then use the alkyl chain as the parent and the cycloalkane as a **cycloalkyl-** substituent.

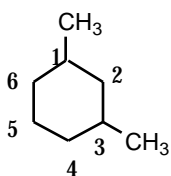


Methylcyclopentane

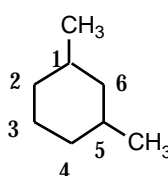


2-Cyclopropylbutane

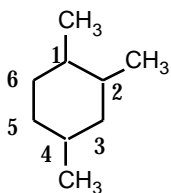
- Numbering the Cycloalkane*
 - When numbering the carbons of a cycloalkane, start with a substituted carbon so that the substituted carbons have the lowest numbers (sum).



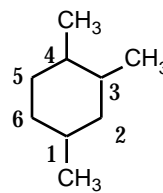
1,3-Dimethylcyclohexane



-not-
1,5-Dimethylcyclohexane

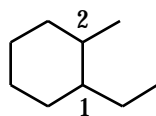


1,2,4-Trimethylcyclohexane
(1 + 2 + 4 = 7)

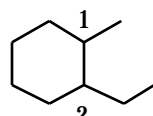


-not-
1,3,4-Trimethylcyclohexane
(1 + 3 + 4 = 8)

- When two or more different substituents are present, number according to alphabetical order.



1-Ethyl-2-methylcyclohexane

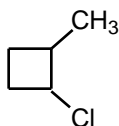


-not-
2-Ethyl-1-methylcyclohexane

- Halogen Substituents*

Halogen substituents are treated exactly like alkyl groups:

-F	fluoro-
-Cl	chloro-
-Br	bromo-
-I	iodo-



1-Chloro-2-methylcyclobutane