

Pass in Molecular Models Investigation

Organic Families

Organic families are classed according to functional groups. Functional groups are areas on a molecule that are reactive.

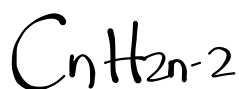
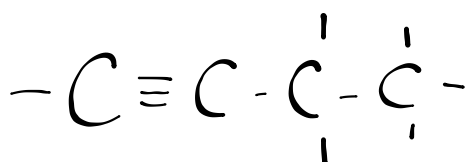
Hydrocarbons with general formula C_nH_{2n+2} contain all single bonds and are called alkanes.

Ex.

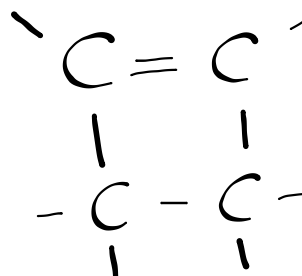
Hydrocarbons with general formula C_nH_{2n} contain one double bond (alkenes) or are cyclic (cycloalkanes).

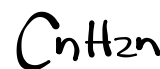
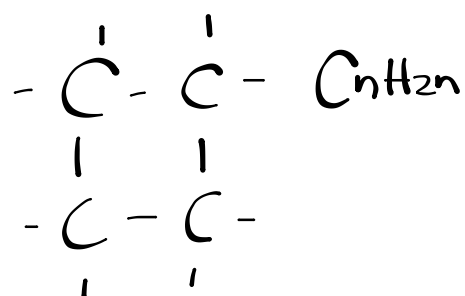
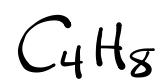
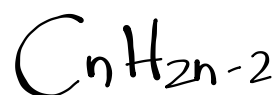
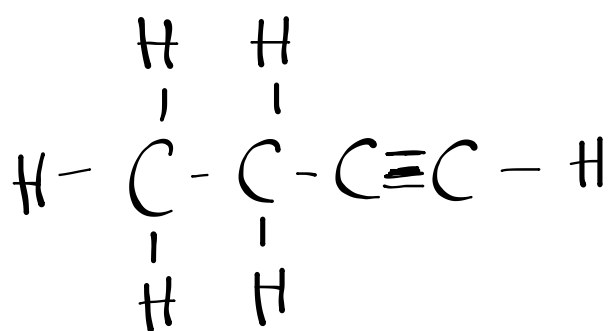
→ "closed ring"

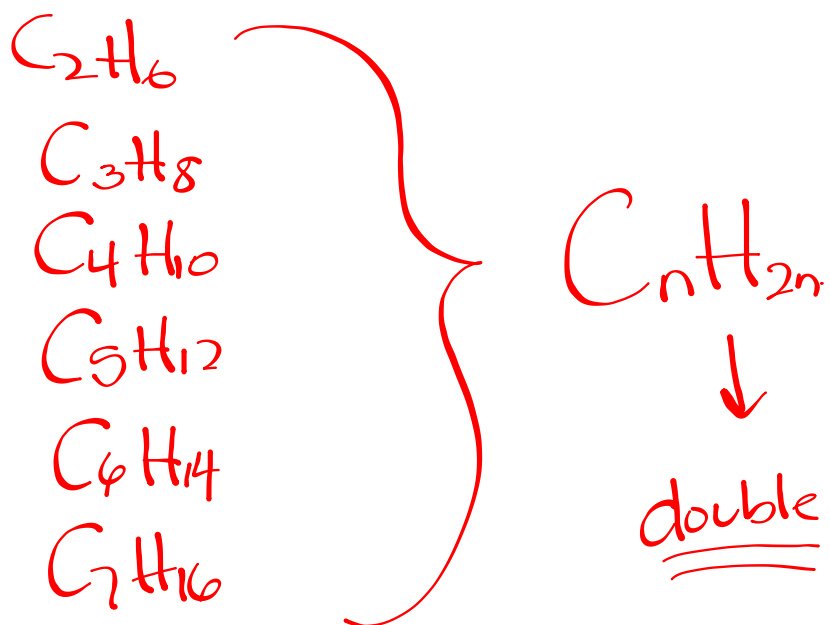
Hydrocarbons with a general formula C_nH_{2n-2} have a triple bond (alkynes) or are cyclic with a double bond (cycloalkenes).



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Match each of the following descriptions with the correct chemical formula.



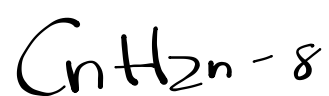
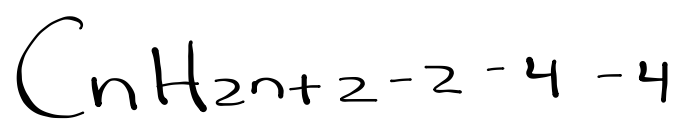
closed ring, two triple bonds

all single bonds (alkane)

cycloalkane

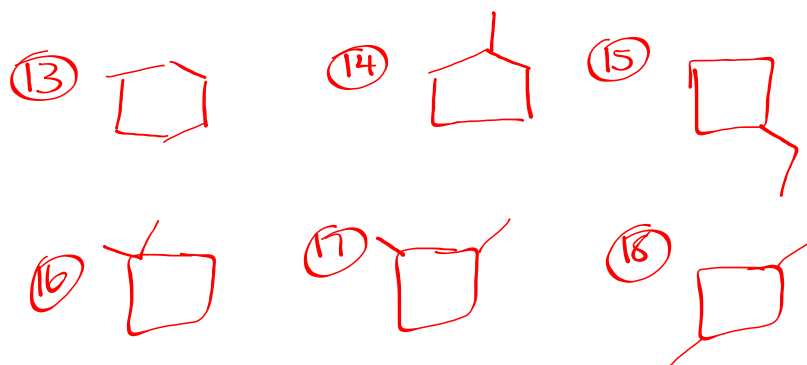
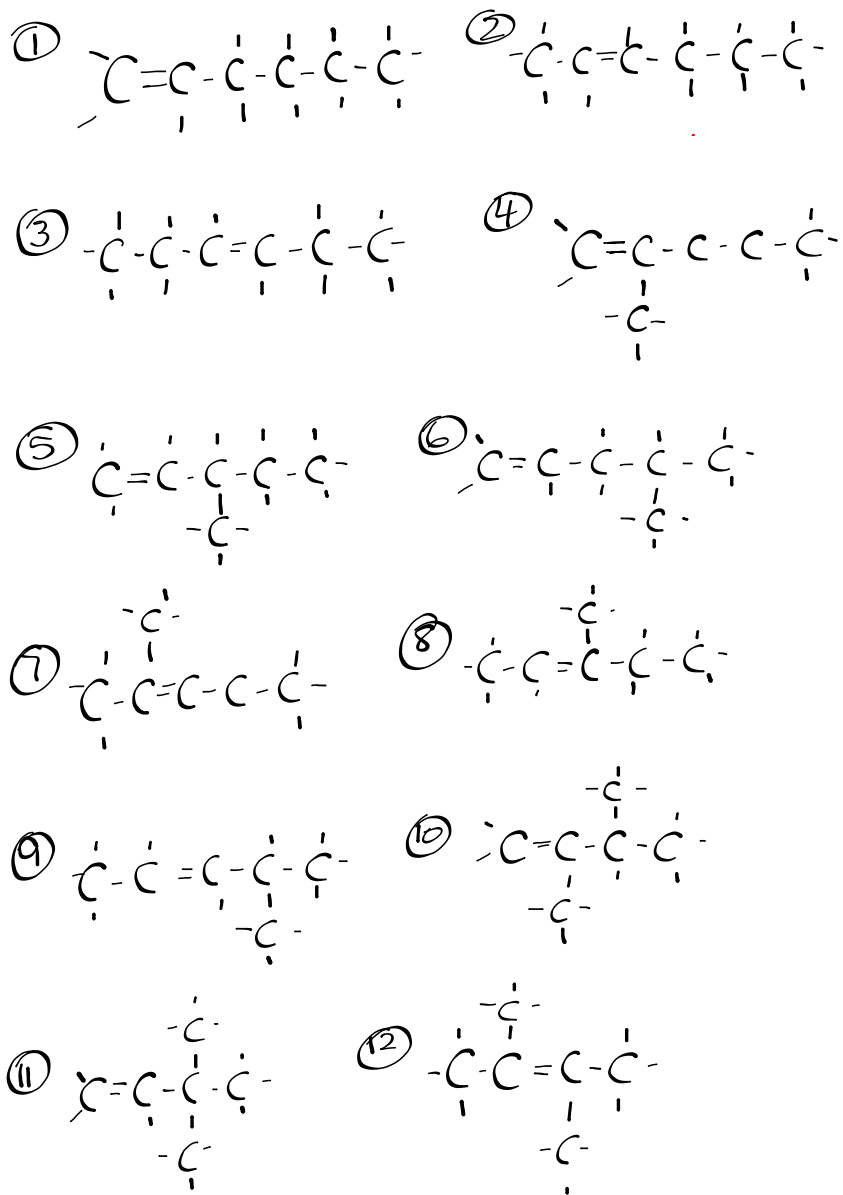
$\text{C}_n\text{H}_{2n+2-4-2}$ $\text{C}_n\text{H}_{2n-4}$
triple bond and double bond

two double bonds



Isomers of C_6H_{12}

↓
double bond or cyclo-
alkane



Isomers of C_6H_{10}

12