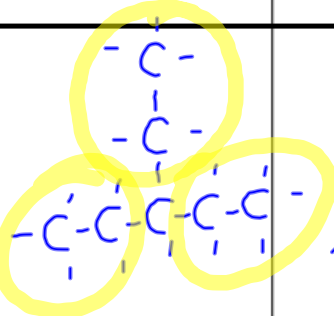

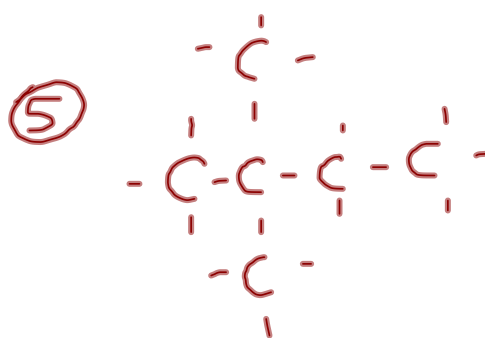
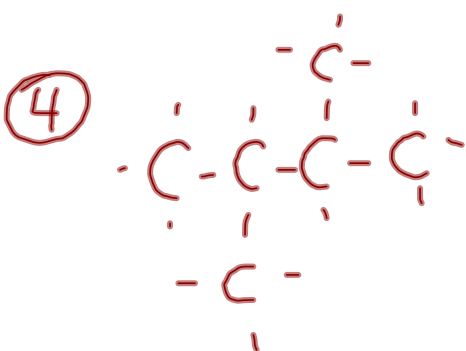
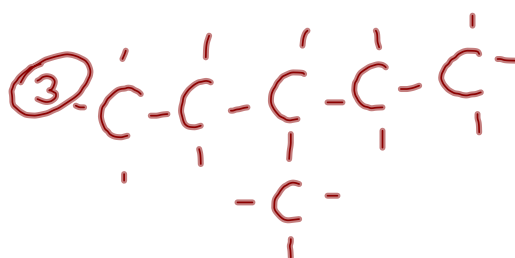
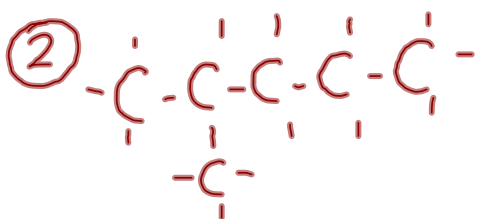
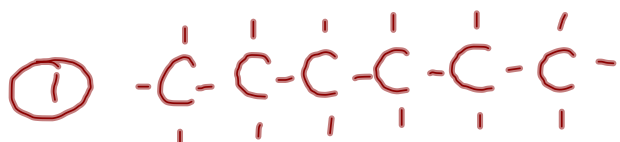
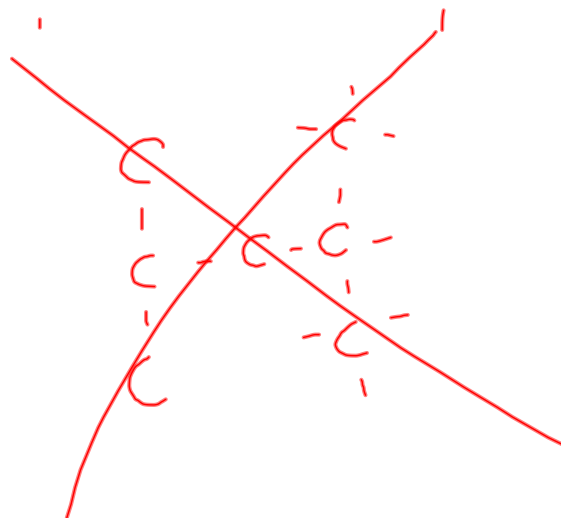
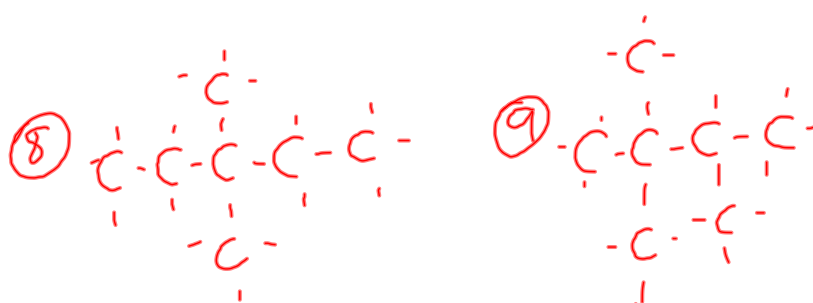
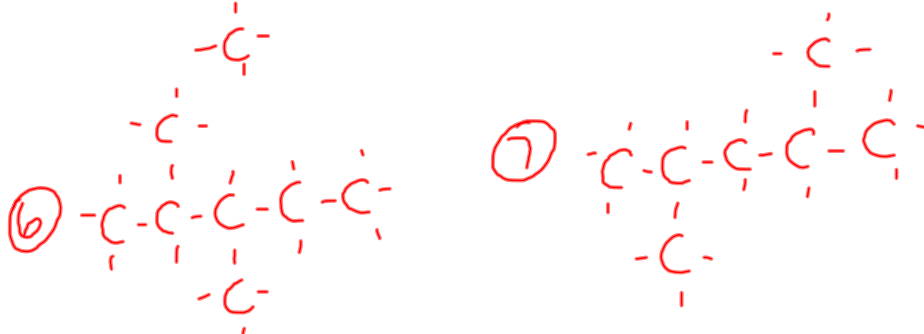
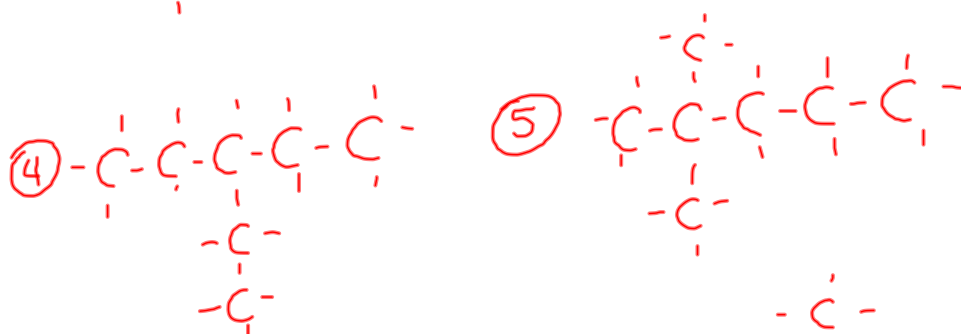
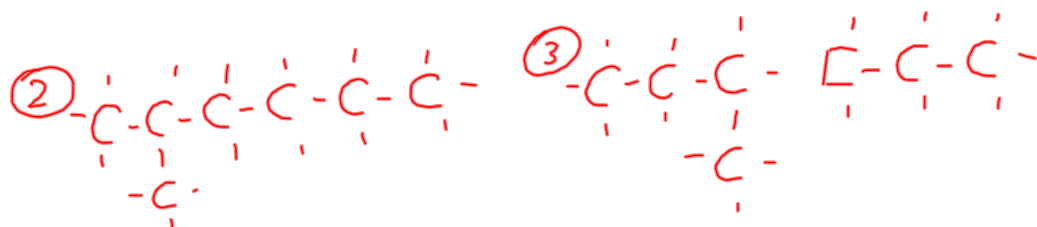
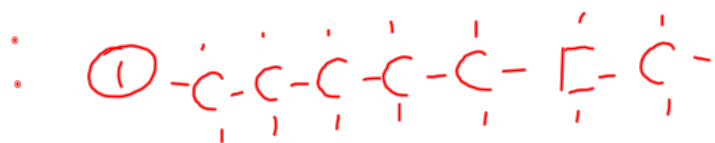


Molecular Formula	Expanded Molecular Formula	Complete Structural Diagram	Condensed Structural Diagram	Line Diagram
C ₇ H ₁₆	$\text{CH}_3\text{CH}_2\text{CH}(\text{C}_2\text{H}_5)\text{CH}_2\text{CH}_3$ $\text{CH}_3\text{CH}_2\text{CH}(\text{C}_2\text{H}_5)_2$			
	$\text{CH}(\text{C}_2\text{H}_5)_3$			

Isomers of C₆H₁₄



Isomers of C₇H₁₆



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**.

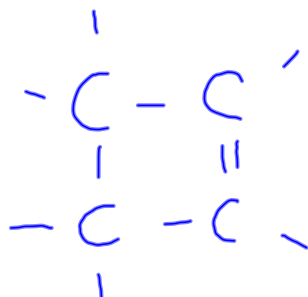
Ex.

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**).

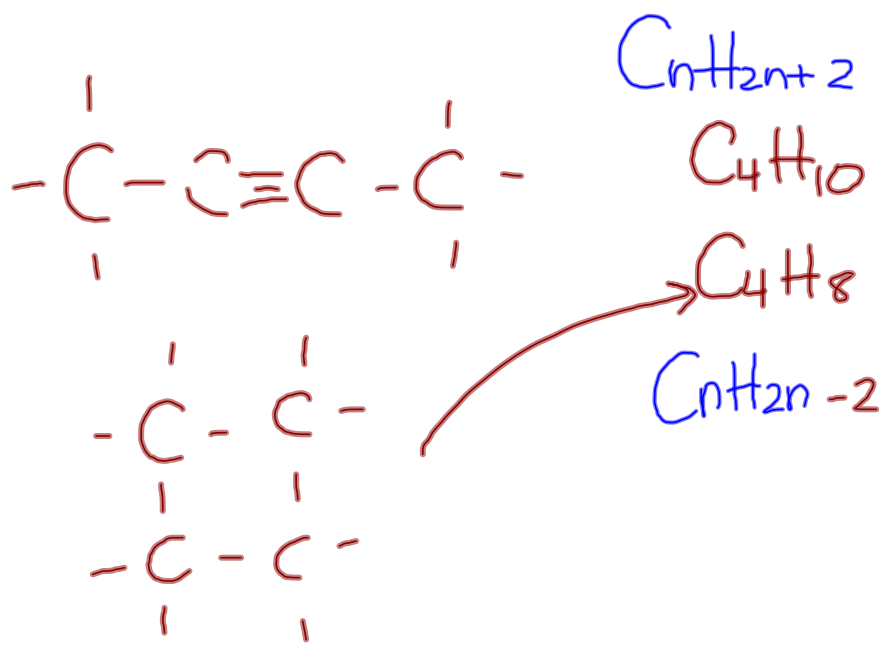
↳ two double bonds



CH_4
 C_2H_6
 C_3H_8
 C_4H_{10}

C_5H_{12}
 C_6H_{14}
 C_7H_{16}

$\text{C}_n\text{H}_{2n+2}$



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



closed ring, two triple bonds



all single bonds (alkane)



cycloalkane



triple bond and double bond



two double bonds

Isomers of C_8H_{18}



→ only single bonds

Isomers of C_6H_{12}



→ one double bond or cycloalkane