

Name _____

Date ___/___/___ Period ___

19 • Organic Chemistry

HYDROCARBONS

Fill in the name or formula for the following open-chain hydrocarbons (no cycloalkanes):

1. C₃H₈ _____

10. _____ butene

2. C₅H₈ _____

11. _____ octyne

3. C₂H₄ _____

12. _____ propene

4. C₇H₁₆ _____

13. _____ pentane

5. C₄H₁₀ _____

14. _____ nonene

6. C₈H₁₆ _____

15. _____ ethyne

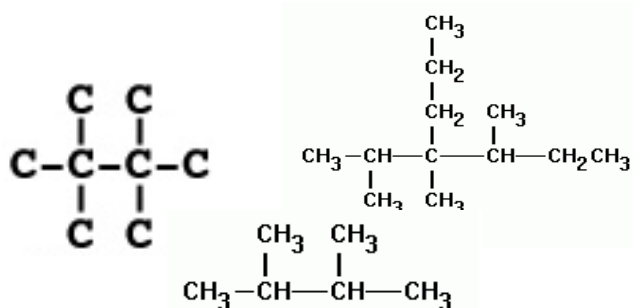
7. C₉H₁₆ _____

16. _____ hexyne

8. C₁₀H₂₂ _____

17. – 22. Draw and name the three isomers of pentane:

9. Name the following molecules:



23. Draw the molecule:

3-ethyl-2,2,5,5-tetramethyloctane

Organic Nomenclature Practice

Name	(1) Molecular formula (2) Condensed formula	Structural Formula
	(1) and (2)	$ \begin{array}{c} \text{H}_2 \\ \\ \text{H}_3\text{C}-\text{C}-\text{C}-\text{CH}_3 \\ \\ \text{H}_2 \end{array} $
(remember unsat. fats!)	(1) and (2)	$ \begin{array}{c} \text{H} \\ \\ \text{H}_3\text{C}-\text{C}=\text{C}-\text{CH}_3 \\ \\ \text{H} \end{array} $
	(1) and (2)	$ \begin{array}{c} \text{H}_2 \\ \\ \text{HC}\equiv\text{C}-\text{C} \\ \\ \text{CH}_3 \end{array} $
	(1) and (2)	$ \begin{array}{c} \text{H} \\ \\ \text{H}_2\text{C}=\text{C}-\text{C}=\text{CH}_2 \\ \\ \text{H} \end{array} $
(remember unsat. fats!)	(1) and (2)	$ \begin{array}{c} \text{H}_3\text{C} & \text{CH}_3 \\ & \\ & \text{C}=\text{C} \\ & \quad \\ & \text{H} \quad \text{H} \end{array} $