

Name \_\_\_\_\_

Period \_\_\_\_\_

**Naming Alkanes – Worksheet #1****KEY**

Name the following branched alkanes:

1.	$\begin{array}{c} \text{H}_3\text{C}-\text{CH}-\text{CH}_3 \\   \\ \text{CH}_3 \end{array}$	2-methyl propane
2.	$\begin{array}{c} \text{H}_3\text{C}-\text{CH}-\text{CH}_3 \\   \\ \text{CH}_2-\text{CH}_3 \end{array}$	2-methyl butane
3.	$\begin{array}{c} \text{H}_3\text{C}-\text{CH}_2-\text{CH}_2-\text{CH}-\text{CH}_2-\text{CH}_2-\text{CH}_3 \\   \\ \text{CH}_2-\text{CH}_3 \end{array}$	4-ethyl heptane
4.	$\begin{array}{c} \text{H}_3\text{C}-\text{CH}_2-\text{CH}_2-\text{CH}-\text{CH}-\text{CH}_2-\text{CH}_3 \\   \qquad \qquad   \\ \text{CH}_3 \qquad \text{CH}_2-\text{CH}_3 \end{array}$	3-ethyl-4-methyl heptane
5.	$\begin{array}{c} \text{H}_3\text{C}-\text{CH}_2-\text{CH}-\text{CH}_2-\text{CH}-\text{CH}_2-\text{CH}_3 \\   \qquad \qquad   \\ \text{CH}_3 \qquad \text{CH}_2-\text{CH}_2-\text{CH}_3 \end{array}$	5-ethyl-3-methyl octane
6.	$\begin{array}{c} \text{H}_3\text{C}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_2 \\   \\ \text{H}_3\text{C}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{C}-\text{CH}_2-\text{CH}_3 \\   \\ \text{CH}_3 \end{array}$	5-ethyl-5-methyl decane
7.	$\begin{array}{c} \text{CH}_2-\text{CH}_2-\text{CH}_3 \\   \\ \text{H}_2\text{C}-\text{CH}-\text{CH}_2-\text{CH}-\text{CH}_3 \\   \qquad \qquad   \\ \text{CH}_3 \qquad \text{CH}_2-\text{CH}_2-\text{CH}_3 \end{array}$	4-ethyl-6-methyl nonane

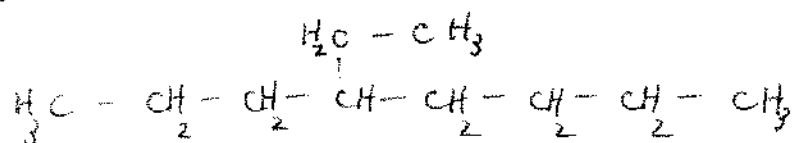
(over)

KEY

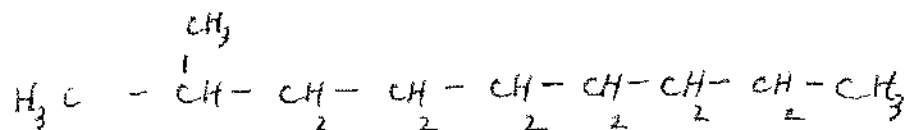
Draw structural formulas for the following molecules. Remember the following:

- Carbons on the end of a chain are attached to three hydrogens
- Carbons in the middle of a chain are attached to two hydrogens
- Carbons that have one branch attached are also attached to one hydrogen
- Carbons that have two branches attached are not attached to any hydrogens.

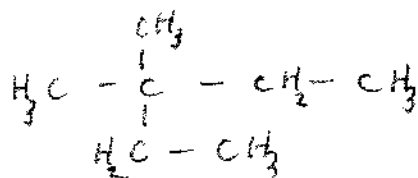
8. 4-ethyl-octane



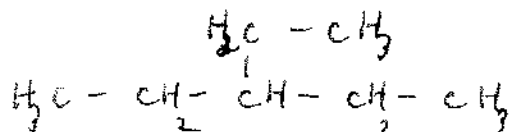
9. 2-methyl-nonane



10. 2-methyl-2-ethyl-butane      3,3 - dimethyl pentane



11. 3-ethyl-pentane



12. 2-methyl-3-ethyl-heptane

