

## Naming Alkanes – Worksheet #1

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.	$\begin{array}{c} \text{H}_3\text{C}-\text{CH}-\text{CH}_3 \\   \\ \text{CH}_2-\text{CH}_3 \end{array}$	
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.	$\begin{array}{c} \text{CH}_2-\text{CH}_3 \\   \\ \text{H}_3\text{C}-\text{CH}_2-\text{CH}_2-\text{CH}-\text{CH}-\text{CH}_2-\text{CH}_3 \\   \\ \text{CH}_3 \end{array}$	
5.	$\begin{array}{c} \text{H}_3\text{C}-\text{CH}_2-\text{CH}-\text{CH}_2-\text{CH}-\text{CH}_2-\text{CH}_3 \\   \qquad \qquad   \\ \text{CH}_3 \qquad \qquad \text{CH}_2-\text{CH}_2-\text{CH}_3 \end{array}$	
6.	$\begin{array}{c} \text{H}_3\text{C}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_2 \\   \\ \text{H}_3\text{C}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{C}-\text{CH}_2-\text{CH}_3 \\   \\ \text{CH}_3 \end{array}$	
7.	$\begin{array}{c} \text{CH}_2-\text{CH}_2-\text{CH}_3 \\   \\ \text{H}_2\text{C}-\text{CH}-\text{CH}_2-\text{CH}-\text{CH}_3 \\   \qquad \qquad   \\ \text{CH}_3 \qquad \qquad \text{CH}_2-\text{CH}_2-\text{CH}_3 \end{array}$	

**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

11. 3-ethyl-pentane

12. 2-methyl-3-ethyl-heptane