

Name _____

Period _____

Naming Alkanes – Worksheet #2

KEY

Name the following branched alkanes:

1.	$ \begin{array}{ccccccc} & & & & \text{CH}_2 & \text{---} & \text{CH}_2 & \text{---} & \text{CH}_3 \\ & & & & & & & & \\ \text{H}_3\text{C} & \text{---} & \text{CH}_2 & \text{---} & \text{CH} & \text{---} & \text{CH}_2 & \text{---} & \text{CH} & \text{---} & \text{CH}_2 & \text{---} & \text{CH}_2 & \text{---} & \text{CH}_3 \\ & & & & & & & & & & & & & & \\ & & & & \text{CH}_3 & & & & & & & & & & \end{array} $	<i>5-propyl-3-methyl octane</i>
2.	$ \begin{array}{ccccccc} & & & & \text{CH}_3 & & & & & & & & & & \\ & & & & & & & & & & & & & & \\ \text{H}_3\text{C} & \text{---} & \text{CH}_2 & \text{---} & \text{C} & \text{---} & \text{CH}_2 & \text{---} & \text{CH} & \text{---} & \text{CH}_2 & \text{---} & \text{CH}_3 \\ & & & & & & & & & & & & & & \\ & & & & \text{CH}_3 & & & & \text{CH}_3 & & & & & & \end{array} $	<i>3,3,5-trimethyl heptane</i>
3.	$ \begin{array}{ccccccc} & & & & \text{CH}_3 & & & & & & & & & & \\ & & & & & & & & & & & & & & \\ \text{H}_3\text{C} & \text{---} & \text{CH}_2 & \text{---} & \text{C} & \text{---} & \text{CH}_3 \\ & & & & & & & & & & & & & & \\ & & & & \text{CH}_3 & & & & & & & & & & \end{array} $	<i>2,2-dimethyl butane</i>
4.	$ \begin{array}{ccccccc} & & & & \text{CH}_3 & & & & & & & & & & \\ & & & & & & & & & & & & & & \\ \text{CH}_3 & \text{---} & \text{C} & \text{---} & \text{CH}_3 \\ & & & & & & & & & & & & & & \\ & & & & \text{CH}_3 & & & & & & & & & & \end{array} $	<i>2,2-dimethyl propane</i>
5.	$ \begin{array}{ccccccc} & & & & \text{CH}_2 & \text{---} & \text{CH}_3 \\ & & & & & & & & & & & & & & \\ \text{H}_3\text{C} & \text{---} & \text{CH}_2 & \text{---} & \text{C} & \text{---} & \text{CH}_2 & \text{---} & \text{CH}_3 \\ & & & & & & & & & & & & & & \\ & & & & \text{CH}_2 & \text{---} & \text{CH}_3 & & & & & & & & \end{array} $	<i>3,3-diethyl pentane</i>

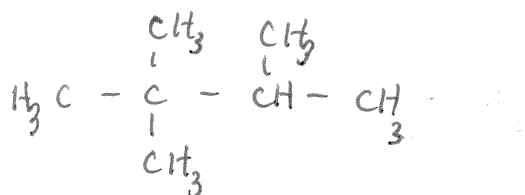
(over)

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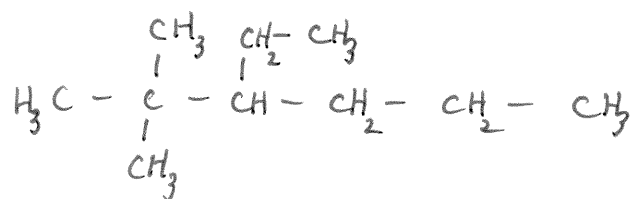
6.	$ \begin{array}{c} \text{CH}_3 \\ \\ \text{H}_3\text{C}-\text{CH}_2-\text{C}-\text{CH}_2-\text{CH}_3 \\ \\ \text{CH}_2-\text{CH}_3 \end{array} $	3-ethyl-3-methylpentane
7.	$ \begin{array}{cccccccc} & & \text{CH}_3 & & \text{CH}_3 & & & \\ & & & & & & & \\ \text{H}_3\text{C} & - & \text{CH} & - & \text{CH} & - & \text{CH} & - & \text{CH} & - & \text{CH} & - & \text{CH}_2 & - & \text{CH}_3 \\ & & & & & & & & & & & & & & \\ & & \text{CH}_3 & & \text{CH}_3 & & \text{CH}_3 & & & & & & & & \end{array} $	2,3,4,5,6-pentamethyloctane

Draw structural formulas for the following molecules:

8. 2,2,3-trimethyl-butane



9. 3-ethyl-2,2-dimethyl-hexane



10. 2,3,4,5,6,7-hexamethyl-octane

