

Chemistry 11: Worksheet - Naming Alkanes (KEY)

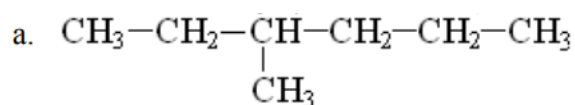
Name: \_\_\_\_\_

Date: \_\_\_\_\_

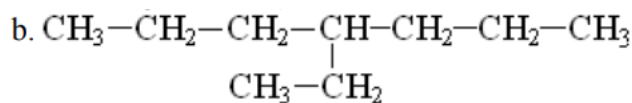
1. Fill in the blanks of the following table:

Alkane & Formula	Structural Formula	Condensed Structural Formula	Skeletal Formula
Pentane C <sub>5</sub> H <sub>12</sub>	$  \begin{array}{cccccc}  & H & H & H & H & H \\  &   &   &   &   &   \\  H & - C & - C & - C & - C & - C - H \\  &   &   &   &   &   \\  & H & H & H & H & H  \end{array}  $	CH <sub>3</sub> CH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub>	
Heptane C <sub>7</sub> H <sub>16</sub>	$  \begin{array}{ccccccccc}  & H & H & H & H & H & H & H & H \\  &   &   &   &   &   &   &   &   \\  H & - C & - C & - C & - C & - C & - C & - C & - C - H \\  &   &   &   &   &   &   &   &   \\  & H & H & H & H & H & H & H & H  \end{array}  $	CH <sub>3</sub> CH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub>	
Butane C <sub>4</sub> H <sub>10</sub>	$  \begin{array}{cccc}  & H & H & H & H \\  &   &   &   &   \\  H & - C & - C & - C & - C - H \\  &   &   &   &   \\  & H & H & H & H  \end{array}  $	CH <sub>3</sub> CH <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub>	

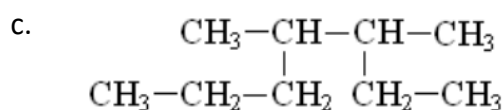
2. Name the following hydrocarbons. (Make sure you find the longest chain!)



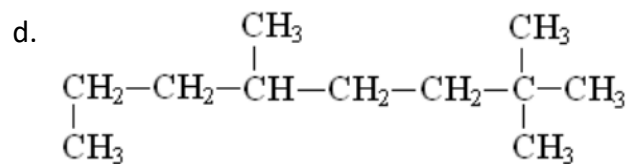
3-methylhexane



4-ethylheptane

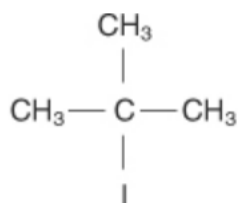


3,4-dimethylheptane



2,2,5-trimethyloctane

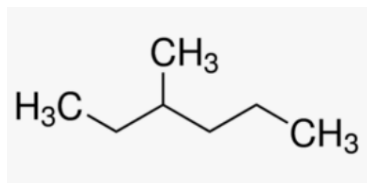
e.



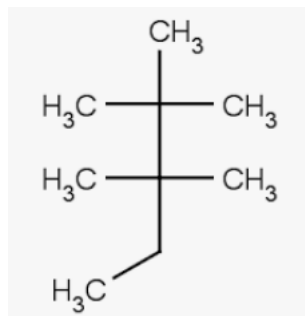
2-iodo-2-methylpropane

3. Draw structures for the following (use the structural formula of your choice).

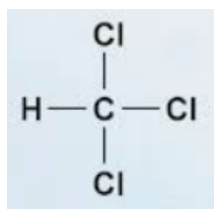
a. 3-methylhexane



b. 2,2,3,3-tetramethylpentane



c. trichloromethane



d. 5-butyl-6,6-diethyl-3,3,7-trimethyldecane

