Worksheet - Naming Alkanes

4. ethyl-6-methyl nonane

Naming Alkenes / Alkynes

Naming alkenes (double bonds) and alkynes (triple bonds) are very similar to alkanes. When naming, take these two points into consideration:

- the longest parent chain of carbon atoms must include the multiple bond, and the chain is numbered from the end closest to the multiple bond
- the name of the compound's parent chain is preceded by a number that indicates the position of the multiple bond on the parent chain.

Ex.
$$CH_2 = CH - CH_2 - CH_3$$

$$-buttene$$

$$CH_3 - C = C - CH_3$$

$$2 - butyne$$

$$CH_3 - 4 - methyl - 2 - pentene$$

$$CH_3 - CH = CH - CH - CH_3$$

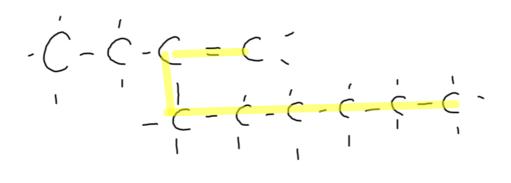
$$2 - 3 + 5 + 6$$

$$CH_2CH_2CH_2CH_3$$

$$2 - methyl - 1 - hexene$$

$$CH_3 - CH = CH_2$$

$$2 - methyl - 1 - hexene$$



Multiple Multiple Bonds

If there is more than one multiple bond in an organic compound, the name of the compound is changed to a _____diene, with the placing of the double bonds indicated at the beginning of the parent name.

1,3-butadiene

$$CH_3$$
 dimethyl-1,3-butadiene $CH_2 = C - C = CH_2$ CH_3 CH_3

methyl-1,4-pentadiyne

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