## Worksheet - Naming Alkanes

$$CH_2 - CH_2 - CH_3$$

$$H_2C - CH - CH_2 - CH - CH_3$$

$$I$$

$$CH_3 - CH_2 - CH_3$$

$$CH_2 - CH_2 - CH_3$$

4- ethyl-6-methylnonane
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## 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. 
$$CH_2 = CH - CH_2 - CH_3$$

$$CH_3 - C \equiv C - CH_3$$

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

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

$$CH_3 - CH = CH_2 - CH_3$$

$$CH_3 - CH = CH_2$$

$$CH_3 - CH = CH_2$$

## 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

$$CH_2 = C - C = CH_2$$

$$CH_3$$

dimethyl-1,3-butadiene

## Homework

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