

CHEMISTRY DAILY PLAN

Class:

Date:

Subject: Nomenclature of Alkenes

Time:

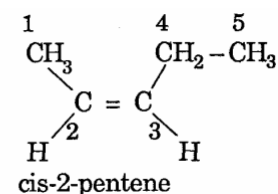
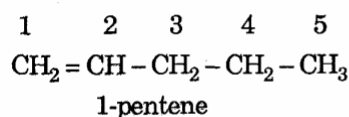
The IUPAC rules for naming alkenes are similar to those for alkanes. Of course, the presence, location, and cis or trans arrangement of the double bond must be indicated.

- Select the longest linear chain of carbon atoms that contain the carbons of double bond. Carbon-carbon double bonds are designated by the ending **-ene**; when more than one double bond is present, the ending **-diene**, **-triene**, and so on.

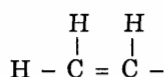
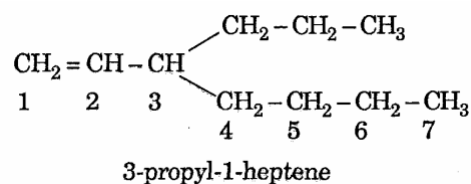
The name of the simplest alkene is ethene. However, ethylene, an old and universally used name, is accepted by the IUPAC.

Propylene is often used instead of propene.

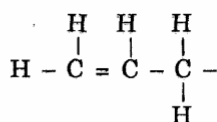
- Number the chain starting at the end nearer to the double bond. The position of the double bond(s) is indicated by the number(s) of the **lower-numbered carbon atom** of each double bond. The configuration by cis or trans is also indicated.



- Name each substituent as a prefix and, when necessary, indicate the number of the carbon to which it is attached.

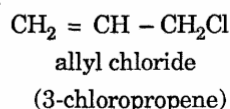
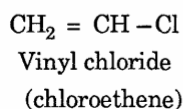


Vinyl
(ethenyl)

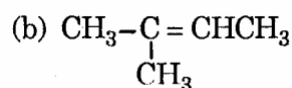
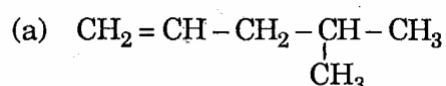


Allyl
(3-propenyl)

The names vinyl and allyl are often used for the following groups that appear frequently in organic compounds.



Example: Write the name of the following compounds.



Example: Draw the structural formula for each of the following compounds.

(a) 2 methyl-1-butene

(b) cis-2-butene

(c) trans-2-butene