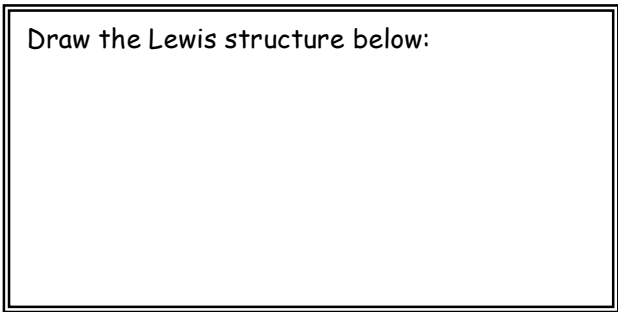


Part 1: Alkanes - Recall that an *alkane* is a hydrocarbon in which each carbon atom forms _____ covalent bonds with four other atoms. The name of an alkane ends in _____, and the number of _____ atoms is indicated by a prefix: "meth-" means _____ atom, "eth-" means _____ atoms, "prop-" means _____ atoms and "but-" means _____ atoms. These are only four of many prefixes used to name alkanes. The general formula for an alkane is _____.

Draw the Lewis structure below:



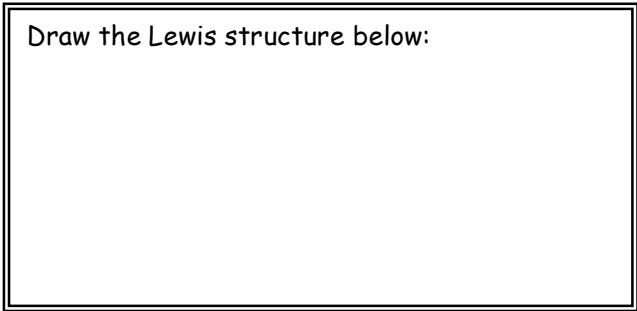
Using the molecular model kit provided, assemble a model of methane, which has the chemical formula _____.

Assemble a model of a two-carbon alkane.

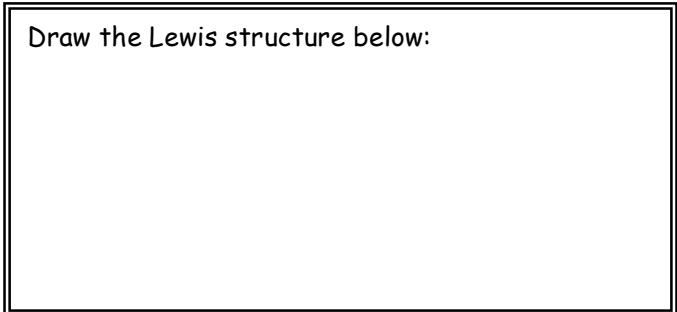
What is its formula? _____

What is its name? _____

Draw the Lewis structure below:



Draw the Lewis structure below:



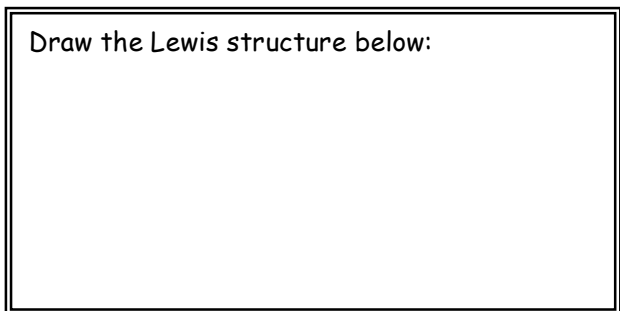
Assemble a model of a three-carbon alkane.

What is its formula? _____

What is its name? _____

Part 2: Alkenes - Recall that an *alkene* is a hydrocarbon with one _____ bond between two of the carbon atoms in the chain. The alkenes follow a pattern much like that of the alkanes. The same prefix as that used for the alkanes is used to indicate the number of _____ atoms in the molecule; however, each name ends in _____. The general formula for an alkene is _____.

Draw the Lewis structure below:

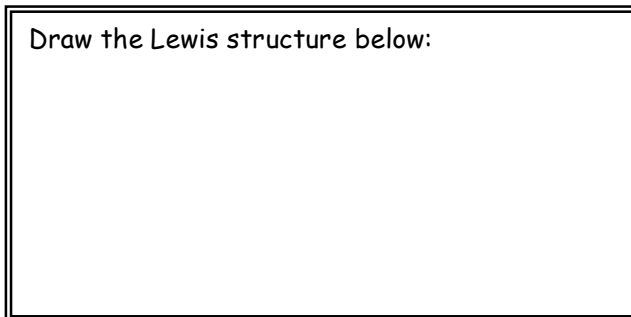


Using the molecular model kit provided, assemble a model of ethene, which has the chemical formula _____.

Build a model of propene.

What is its formula? _____

Draw the Lewis structure below:



Why can you not build a model of methene?