

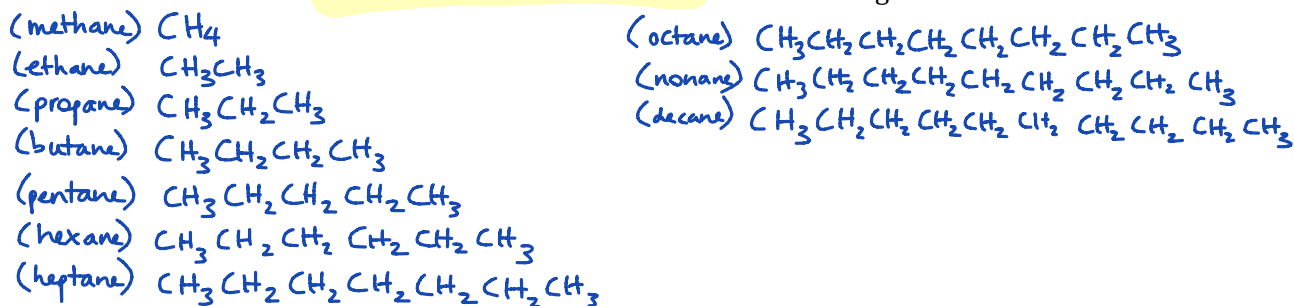
## Naming Simple Hydrocarbons

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- 
- Chemical Formula:

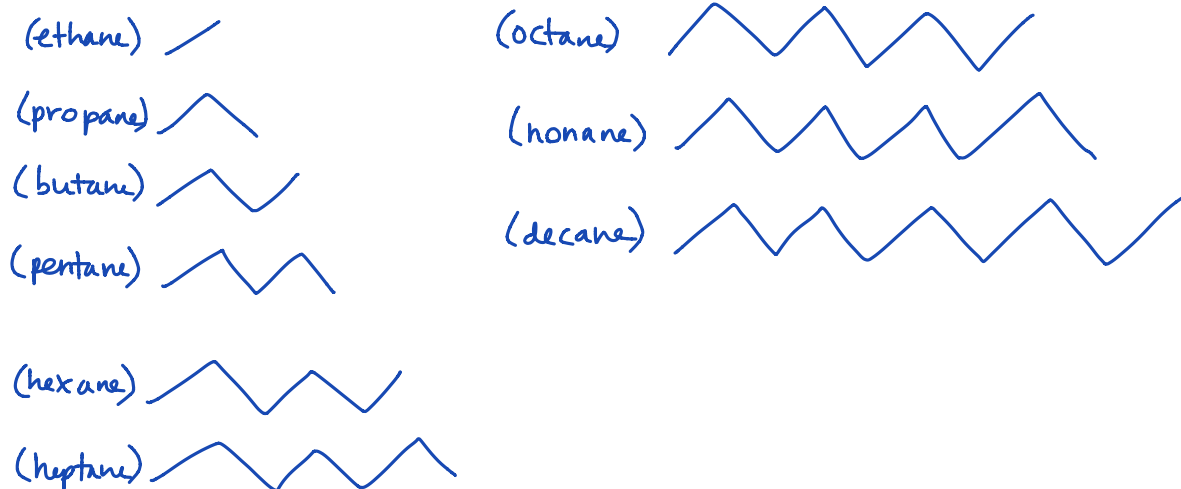
# of C Atoms	Prefix	Alkane	Formula
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

### Practice!

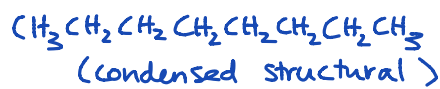
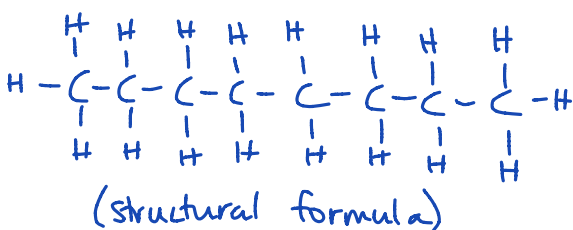
1. Write out the condensed structural formula for all 10 straight-chain alkanes.



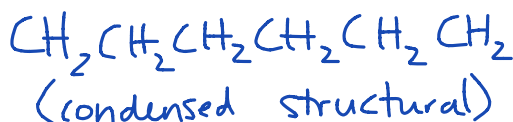
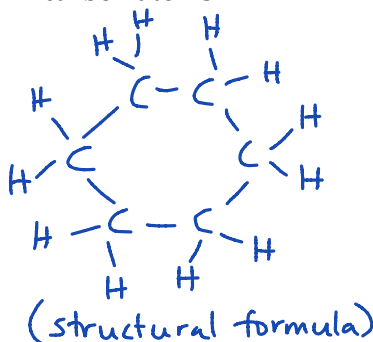
2. Draw the carbon skeleton formula for all 10 straight-chain alkanes. (You cannot draw methane.)



3. Octane, a constituent of gasoline, has the molecular formula  $C_8H_{18}$ . Draw a structural formula, condensed structural formula and carbon skeleton formula for octane. Assume that the carbons are all bonded in a single chain to each other.



4. Draw a structural formula, condensed structural formula, and carbon skeletal formula for  $C_6H_{12}$ . Arrange the carbon atoms in a closed ring shape so that each carbon atom is bonded to two other carbon atoms.

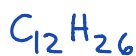


5. What would the formula be for a straight chain alkane that had the following number of carbon or hydrogen atoms?  $C_n H_{2n+2}$

a. 6 carbon atoms



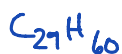
b. 12 carbon atoms



c. 14 carbon atoms



d. 29 carbon atoms



e. 98 carbon atoms



f. 102 hydrogen atoms



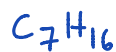
g. 54 hydrogen atoms



h. 84 hydrogen atoms



i. 16 hydrogen atoms



j. 4 hydrogen atoms

