

1. How many different compounds can you draw for the formula C_5H_{12} ?
2. Is there a generic formula for an alkane containing "n" carbon atoms?
3. How would this generic formula change if you joined the ends of a carbon chain and made a ring? (for example cyclohexane has six carbons in a ring - how many hydrogens would it have?)
4. How would this generic formula change if you had a double bond in there instead of all single bonds? – how about a triple bond?
5. Hydrocarbons are non-polar, we can assume they only have London Dispersion Forces between molecules. Make a prediction as to the melting and boiling points of ethane, compared to methane; what assumptions are you making?
6. In general how will boiling points and melting points of hydrocarbons change as the molecular weight increases? Why?