

Part I: For the following molecular names,

a. Draw the structural formula

(Hint: Draw the functional group first, then use the prefix (i.e. meth, eth, prop, etc.) to determine how many total carbons are in the structure. Finally, use HONC 1234 to place the hydrogens. Then, VOILA! You have your structural formula! ☺)

Note: For esters, remember that the functional group is in the middle. The first part of the ester's name indicates how many carbons are attached to the oxygen piece. Then, the second part of the name tells how many carbons are attached on the other half.

b. Write the molecular formula (based on the structural formula you drew)

c. Predict the smell of the molecule

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|--------------------|----------------------|---------------------------------|
| 1. Propanone       | 2. Methanoic acid    | 3. Pentanol (or pentyl alcohol) |
| 4. propyl butyrate | 5. Hexyl propanoate  | 6. Decanol                      |
| 7. pentanone       | 8. Methyl propanoate | 9. Heptanoic acid               |
| 10. ethyl amine    | 11. Dimethyl amine   | 12. Triethyl amine              |
| 13. octane         | 14. nonane           | 15. Pentanoic acid              |

# CHALLENGE PROBLEM: Pentene

Part II: For the following structures,

a. Name the molecule

b. Write the molecular formula

c. Predict the smell

