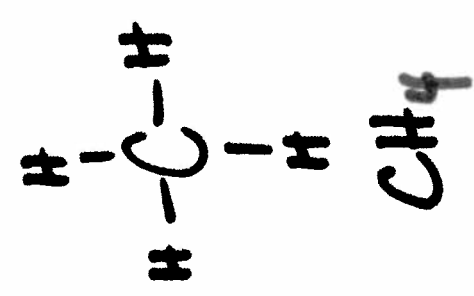


Prefix	meth	eth	prop	but	pent	hex	hept	oct	non	dec
# of C	1	2	3	4	5	6	7	8	9	10

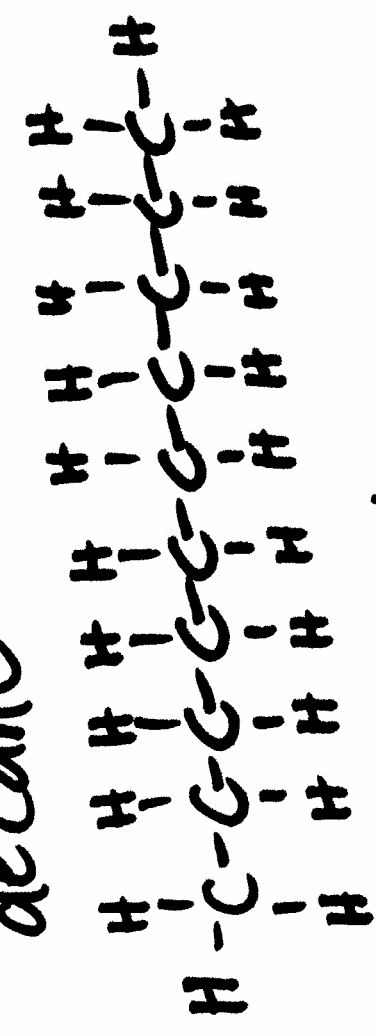
alkane = C_nH_{2n+2}

"-ane" smell like gasoline

methane

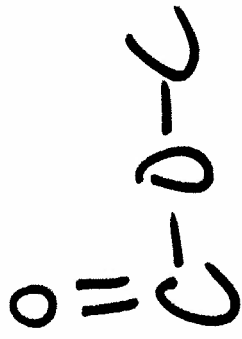


decane



$C_{10}H_{22}$

Review of functional groups



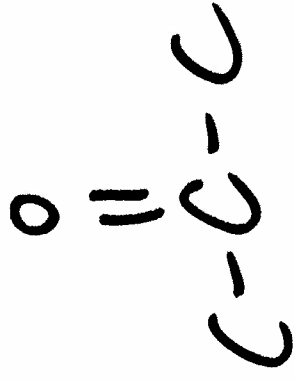
ester
"-yl -ate"
sweet



amine

"ine"

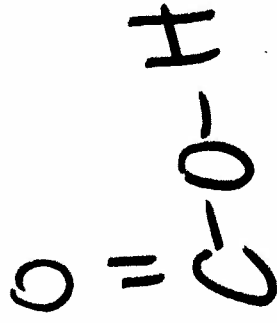
fishy



ketone

"-one"

minty



carboxylic acid

"ic acid"

putrid



alcohol

"-ol"

camphor

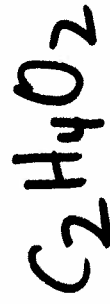
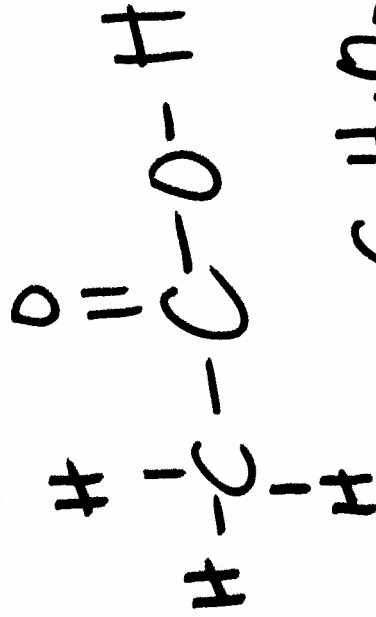
Practice: Given the name $\rightarrow$ draw the structure,
write the molecular
formula & predict
smell

① Ethanoic acid

Step 1: Draw funct. gp.

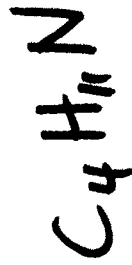
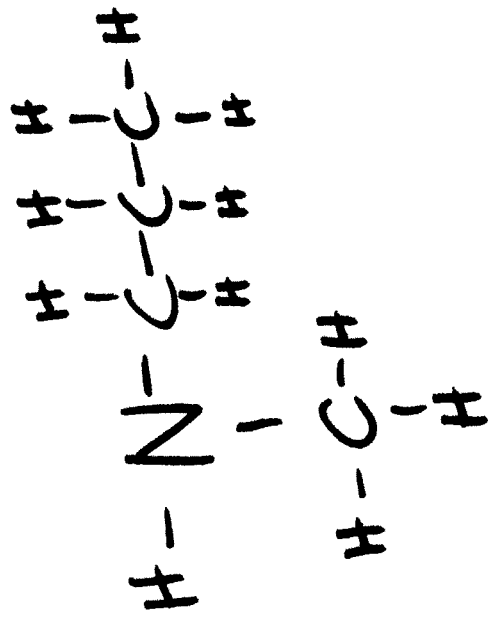
Step 2: Use prefix to get # of C

Step 3: Use H₂NC_n to fill in H's



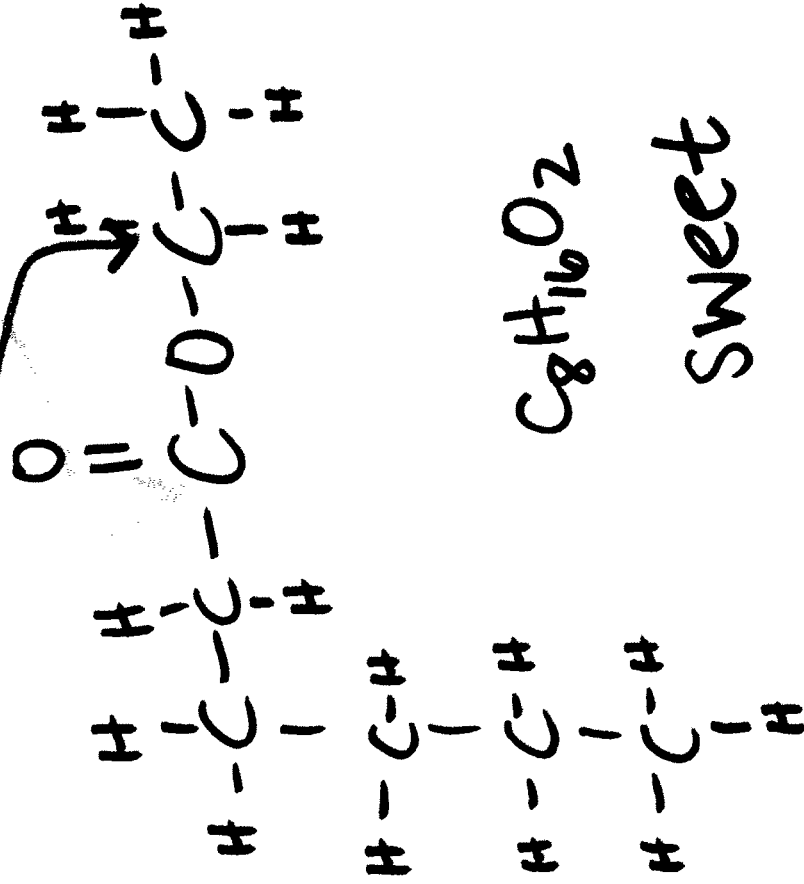
putrid

⑥ methyl propyl amine



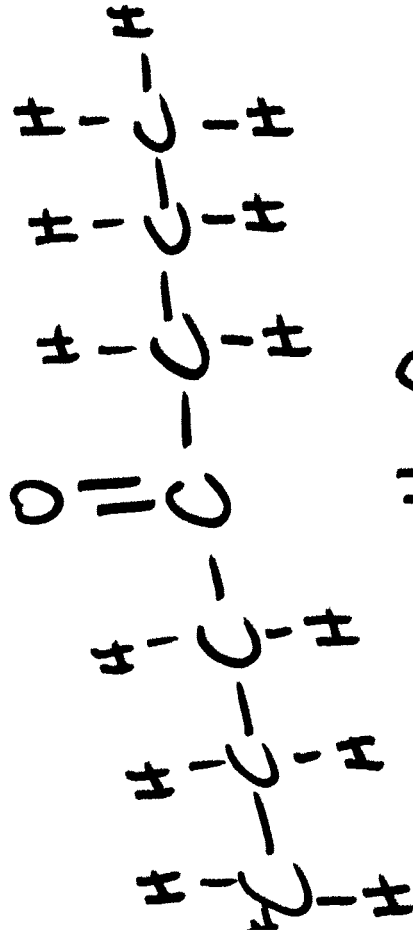
fishy

⑦ ethyl hexanoate



sweet

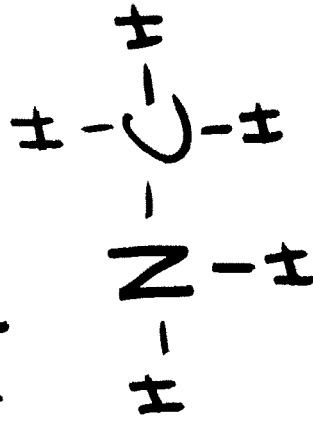
② heptanone



$C_7H_{14}O$

minty

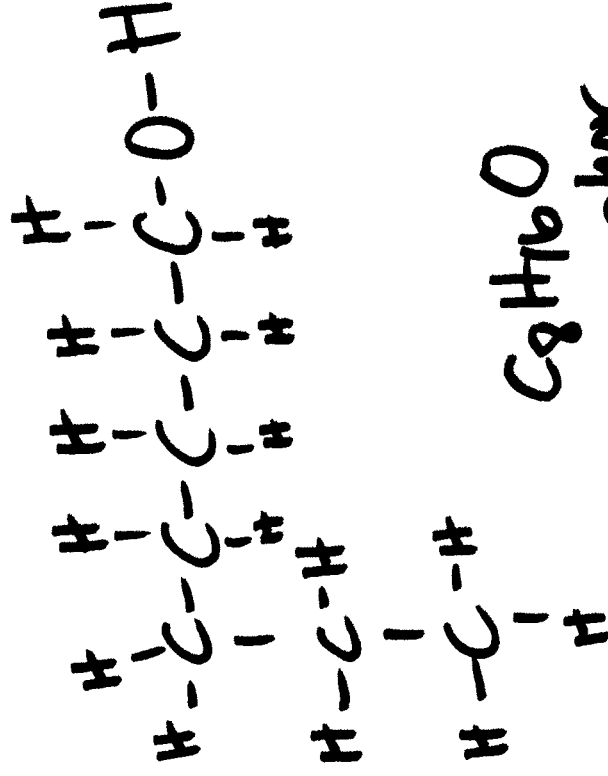
④ methyl amine



CH_5N

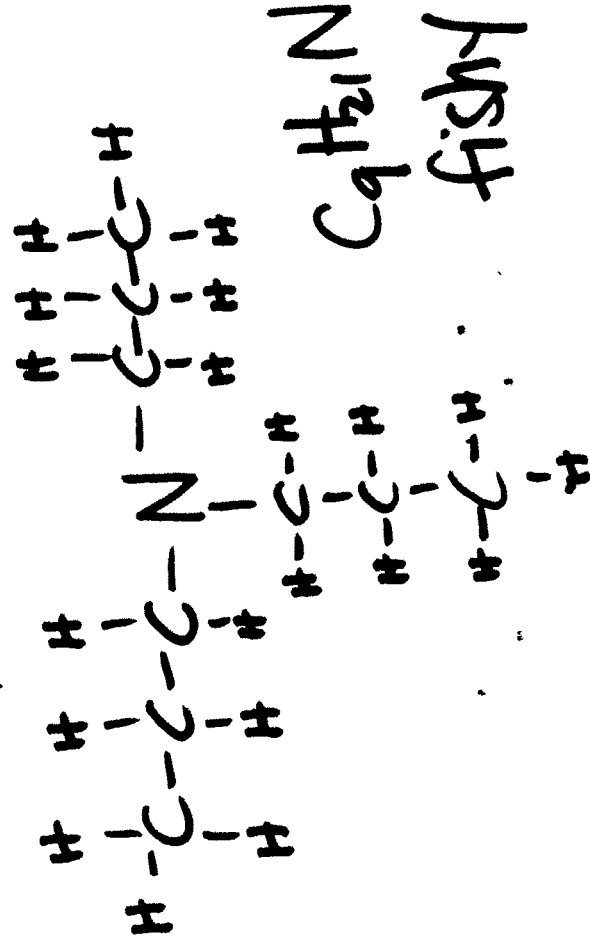
fishy

③ octanol



$C_8H_{16}O$
camphor

⑤ tripropyl amine



$C_9H_{21}N$

fishy

Molecular Drawings

Part I: For the following molecular names,

- 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, VOILÀ! 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.
- Write the molecular formula (based on the structural formula you drew)
 - Predict the smell of the molecule

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

CHALLENGE PROBLEM: Pentene

Part II: For the following structures,

- Name the molecule
- Write the molecular formula
- Predict the smell

