Naming the Organic Molecules of Chapter 9 Worksheet and Key

1) Write the names of the following organic molecules:

NOTE: If you are having a hard time with these, you may wish to try drawing them as line bond structures.

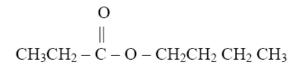
$$\begin{matrix} O \\ \parallel \\ CH_3CH_2-C-OH \end{matrix}$$

 CH_3NH_2

$$\begin{array}{c} CH_3-N-H\\ |\\ CH_2CH_3 \end{array}$$

$$\begin{matrix} O \\ \parallel \\ CH_3 \ CH_2 \ C - O \end{matrix}$$

$$\begin{array}{c} O \\ \parallel \\ CH_3CH_2\ CHCH_2-\ C-O-H \\ \mid \\ CH_3 \end{array}$$



2) Write the condensed formula for the following compounds
NOTE: If you are having a hard time with these, try drawing the Line Bond Structure, then convert it to a condensed structure.
a) 1- butanamine
b) pentanoic acid
c) N-ethylethanamine
d) pentanoate ion
e) methyl pentanoate
f) 5-methylhexanoic acid
g) N-methyl-2-propanamine

1) Write the names of the following organic molecules:

 $\begin{array}{c} || \\ CH_3CH_2-C-OH \end{array} \qquad \qquad propanoic acid \\$

 CH_3NH_2

..... methanamine

 $CH_3-N-\ H$

CH₂CH₃ N-methylethanamine

|| CH₃ CH₂ C − O⁻

..... propanoate ion

 $\begin{array}{c} \parallel \\ \mathrm{CH_{3}CH_{2}\ CHCH_{2}-C-O-H} \end{array}$

CH₃

...... 3-methylpentanoic acid

CH₃CH₂ - C - O - CH₂CH₂ CH₂ CH₃butyl propanoate

H — N—CH₂CH₃

CH₃CHCH₂CH₂CH₃ N-ethyl-2-pentanamine

- 2) Write the condensed formula for the following compounds
- a) 1- butanamine

b) pentanoic acid

$$O$$
 \parallel
 $CH_3CH_2CH_2CH_2-C-OH$

c) N-ethylethanamine

d) pentanoate ion

$$O$$
 \parallel
 $CH_3CH_2CH_2CH_2-C-O$

e) methyl pentanoate

$$\begin{matrix} & & O \\ & \parallel \\ & CH_3CH_2CH_2CH_2 - C - O - CH_3 \end{matrix}$$

f) 5-methylhexanoic acid

g) N-methyl-2-propanamine