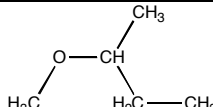
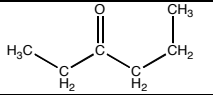
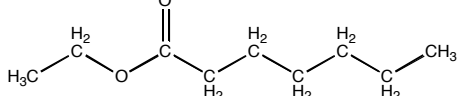
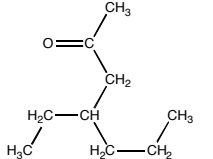
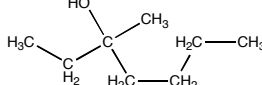


Worksheet 12

For the following, where the name is given, write the full structure showing all atoms and bonds. Where the structure is given, write the name using the rules shown in class. In the column that says class of compound put the correct class such as primary alcohol, secondary alcohol, tertiary alcohol, ether, aldehyde, thiol, ketone, carboxylic acid, ester, or primary amine.

	Class of compound	Name	Structure
1.			$ \begin{array}{ccccccc} & \text{H} & & \text{H} & & \text{O} & & \text{H} \\ & & & & & & & \\ \text{H} & - \text{C} & - & \text{C} & - & \text{C} & - & \text{C} & - \text{H} \\ & & & & & & & \\ & \text{H} & & \text{H} & & & & \text{CH}_3 \end{array} $
2.			$ \begin{array}{ccccccccccc} & \text{H} & & \text{H} & & \text{H} & & \text{H} & & \text{H} & & \text{H} & & \text{H} \\ & & & & & & & & & & & & & \\ \text{H} & - \text{C} & - & \text{C} & - & \text{C} & - & \text{C} & - & \text{C} & - & \text{C} & - & \text{C} & = \text{O} \\ & & & & & & & & & & & & & \\ & \text{H} & & \text{H} & & \text{H} & & \text{H} & & \text{H} & & \text{H} & & \text{OH} \end{array} $
3.			$ \begin{array}{ccccccc} & \text{H} & & \text{H} & & \text{H} & \\ & & & & & & \\ \text{HO} & - \text{C} & - & \text{C} & - & \text{C} & - \text{H} \\ & & & & & & \\ & \text{H} & & \text{H} & & \text{H} & \end{array} $
4.			$ \begin{array}{ccccccc} & \text{H} & & \text{H} & & \text{H} & & \text{H} \\ & & & & & & & \\ \text{H}_3\text{C} & - \text{C} & - & \text{C} & - & \text{C} & - \text{O} & - \text{C} & - \text{H} \\ & & & & & & & \\ & \text{H} & & \text{H} & & \text{H} & & \text{H} \end{array} $
5.			$ \begin{array}{ccccccc} & \text{H} & & \text{H} & & \text{H} & \\ & & & & & & \\ \text{H}_2\text{N} & - \text{C} & - & \text{C} & - & \text{C} & - \text{H} \\ & & & & & & \\ & \text{H} & & \text{H} & & \text{H} & \end{array} $
6.			$ \begin{array}{ccccccccccc} & \text{H} & & \text{H} & & \text{H} & & \text{OH} & & \text{H} & & \text{H} & & \text{H} \\ & & & & & & & & & & & & & \\ \text{H} & - \text{C} & - & \text{C} & - & \text{C} & - & \text{C} & - & \text{C} & - & \text{C} & - & \text{C} & - \text{H} \\ & & & & & & & & & & & & & \\ & \text{H} & & \text{H} & & \text{CH}_3 & & \text{H} & & \text{H} & & \text{H} & & \text{H} \end{array} $
7.			$ \begin{array}{ccccccc} & \text{H} & & \text{H} & & & \\ & & & & & & \\ \text{H}_3\text{C} & - \text{C} & - & \text{C} & - & \text{C} & = \text{O} \\ & & & & & & \\ & \text{H} & & \text{H} & & \text{H} & \end{array} $
8.			$ \begin{array}{ccccccc} & \text{H} & & \text{H} & & \text{H} & & \text{H} \\ & & & & & & & \\ \text{H} & - \text{C} & - & \text{C} & - & \text{C} & - & \text{C} & - \text{H} \\ & & & & & & & \\ & \text{H} & & \text{H} & & \text{H} & & \text{NH}_2 \end{array} $
9.			$ \begin{array}{ccccccc} & & & \text{O} & & & \\ & & & & & & \\ \text{H}_3\text{C} & - \text{C} & - & \text{C} & - & \text{C} & - \text{C} & - \text{C} & - \text{CH}_3 \\ & & & & & & & \\ & \text{H}_2 & & \text{H}_2 & & \text{H}_2 & & \text{H}_2 \end{array} $
10.			$ \begin{array}{ccccccccccc} & \text{H} & & \text{H} & & \text{H} & & \text{O} & & \text{H} & & \text{H} \\ & & & & & & & & & & & \\ \text{H} & - \text{C} & - & \text{C} & - & \text{C} & - & \text{C} & - \text{O} & - \text{C} & - & \text{C} & - \text{H} \\ & & & & & & & & & & & \\ & \text{H} & & \text{H} & & \text{H} & & & & \text{H} & & \text{H} \end{array} $
11.			$ \begin{array}{ccccccc} & \text{H} & & \text{H} & & \text{H} & & \text{H} & & \text{H} \\ & & & & & & & & & \\ \text{HO} & - \text{C} & - & \text{C} & - & \text{C} & - & \text{C} & - & \text{C} & - \text{H} \\ & & & & & & & & & \\ & \text{H} & & \text{H} & & \text{H} & & \text{H} & & \text{H} \end{array} $
12.			$ \begin{array}{ccccccc} & \text{H} & & \text{OH} & & \text{H} & & \text{H} \\ & & & & & & & \\ \text{H}_3\text{C} & - \text{C} & - & \text{C} & - & \text{C} & - & \text{C} & - \text{H} \\ & & & & & & & \\ & \text{H} & & \text{CH}_3 & & \text{H} & & \text{H} \end{array} $
13.			$ \begin{array}{ccccccc} & \text{H} & & \text{H} & & \text{H} & & \text{H} & & \text{H} \\ & & & & & & & & & \\ \text{H} & - \text{C} & - & \text{C} & - & \text{C} & - & \text{C} & - & \text{C} & - \text{SH} \\ & & & & & & & & & \\ & \text{H} & & \text{H} & & \text{H} & & \text{H} & & \text{H} \end{array} $

14		
15		
16		
17		
18		

Draw the full structural formula for the following:

pentanoic acid	2-ethoxy propane
2-methylpentanal	2-methyl-2-pentanol
ethyl methanoate	3-heptanone
2-aminopropane	methyl propanoate