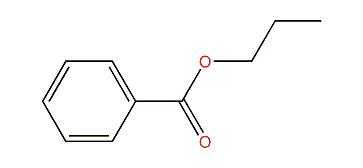
1. What are the reactants that form 2-methylpentanoic acid? Draw this oxidation reaction.
2. Draw the following molecules:
   1. 3-ethylheptanoic acid
   2. Benzoic acid
   3. α,ϒ- dihydroxypentanoic acid
3. Describe the overall solubility as well as the solubility trends of carboxylic acids.
4. Number the following molecules in terms of highest (1) to lowest (5) in terms of boiling point.

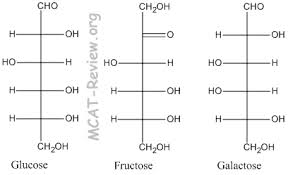
1-pentanol pentanal pentane benzoic acid pentanoic acid

\_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_

1. For number 4, tell which ones are water soluble and which ones are less water soluble.
2. Show the reaction that forms the carboxylic acid salt **sodium pentanoate.**
3. Write the R formula and molecular formula for an ester. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Name the following esters:
   1. CH3CH2CH2(CO)OCH3  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Complete the following phrase. Then complete the reaction that will create butyl pentanoate.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 🡪 Ester + \_\_\_\_\_\_\_\_\_\_\_

Review of Carbohydrates- MWF only



1. Put glucose, fructose, and galactose into individual rings. Identify the anomeric carbons, and tell whether it is alpha or beta.
2. Link two glucose molecules together to form a disaccharide. Make it have an α-1,4 linkage.
3. What is lactase?
4. Are lactose free products sweeter or less sweet than those with lactose?