


**Questions and Problems**

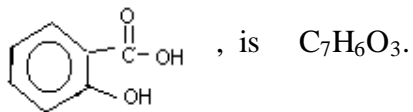
Name \_\_\_\_\_

Section \_\_\_\_\_

1. What is the molar mass for acetic anhydride?

2. In the structural formula for salicylic acid, a simplified formula, , is used to represent the benzene ring,  $C_6H_6$ .

For example salicylic acid,



a) What is the molar mass for salicylic acid? (Please show your calculation steps.)

b) Based on the above example, give the full molecular structural formula for Aspirin and compute its molar mass.

3. In the procedures, it was pointed out that salicylic acid was the limiting reagent in the reaction. Given the density of acetic anhydride as 1.082 g/mL. Prove that this claim by the instruction is true.

Name \_\_\_\_\_

4. Calculate the Theoretical yield and % yield for the reaction and show them on the data sheet.
  
5. Discuss in detail the experimental design and/or errors can make the calculated percent yield higher or lower.

Factors that may increase % yieldFactors that may decrease % yield