Organic 212L
Advanced Study Assignment
Nitration

Name:_____

1) What is a safety concern for nitric acid?

2) Methyl benzoate does not dissolve in sulfuric acid but an ion does. Where would you add a proton to methyl benzoate and what ion would you have when the proton is added? (It isn't on the benzene ring.) (It isn't on the sp^3 hybridized oxygen.)

3) How are you going to determine which product (methyl ortho, meta, or para benzoate) you are going to form?

4) A different procedure had you recrystallize the product from a 50 % ethanol/50 % water solution. How would you make 10 mLs of this 50/50 mixture if you only have 95 % ethanol? SHOW YOUR WORK!

5) You wash your product with cold methanol. A) Why do you use cold methanol? B) How do you make cold methanol?

6) What is the theoretical yield of product if you use the reactants in the procedure?