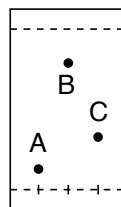
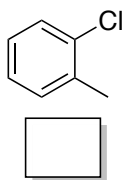
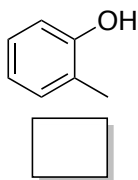
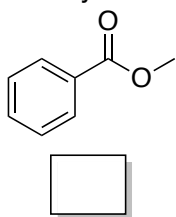


Chemistry 235
Experiment 5 – Report Sheet

Name:	Lab Room:	Desk #:
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Pre-Lab Questions (Complete Prior to Lab)

1. Why is it important that a pencil rather than a ball-point pen or marker be used to mark the TLC plate prior to development?
2. A TLC plate is developed in a solvent system containing 10% Ethyl Acetate – Hexane. After visualization, it is found that the spot did not move from the origin. What might you do to get the spot to move up the plate?
3. The three compounds below were spotted on a TLC plate and developed to give the TLC plate shown. Identify each compound from the TLC with the appropriate letter.



4. Calculate the R_f value for spot B in the TLC plate shown above.

Experimental Data (Complete During Lab)

Known Compounds

TLC Solvent System:		
Compound	Solvent Used to Prepare Solution	R_f Value
Acetaminophen		
Acetylsalicylic Acid		
Ascorbic Acid		

Draw a picture of your TLC Plate

Unknown

Unknown #:		
TLC Solvent System:		
Solvent Used to Dissolve Unknown:		
Number of Spots Visualized on TLC Plate:		
Spot #	R_f Value	Identification

Draw a picture of your TLC Plate(s)

Post-Lab Questions (Complete Following Lab)

1. When using polarity to determine the relative rates at which organic compounds travel up the TLC plate, we are considering compounds of similar molecular weight. It should also be noted that R_f values vary with chain length when comparing molecules containing the same functional group. Would you expect 1-hexanol or 1-decanol to have a higher R_f value? Explain.
2. Did you encounter any issues such as streaking or bleeding in any of your TCL runs? If so, explain what you observed.
3. List the compounds used in this lab (acetaminophen, acetylsalicylic acid, and ascorbic acid) from least polar to most polar. How does this compare to their R_f values?