

Chemistry 111 - Laboratory Report Form
Experiment 2: Chromatographic Separation and Identification of Metal Ions

Name _____

Date _____

Partner _____

1. Attach the chromatogram to this report.
2. Measure the distance the mobile phase traveled. $d_m =$ _____.
3. Complete the table below:

Metal ion	Color of ion after being developed	Distance metal ion traveled (d_a)
Fe^{3+}		
Co^{2+}		
Cu^{2+}		
Unknown ion 1		
Unknown ion 2		

4. Calculate the R_f for the Fe^{3+} . (Show calculation below.) $R_f =$ _____
5. Calculate the R_f for the Co^{2+} . (Show calculation below.) $R_f =$ _____
6. Calculate the R_f for the Cu^{2+} . (Show calculation below.) $R_f =$ _____
7. Calculate the R_f for unknown ion 1. (Show calculation below.) $R_f =$ _____
8. Calculate the R_f for unknown ion 2. (Show calculation below.) $R_f =$ _____
9. Identify the two ions in your unknown sample.
Unknown Sample: _____ Unknown ion 1: _____ Unknown ion 2: _____

