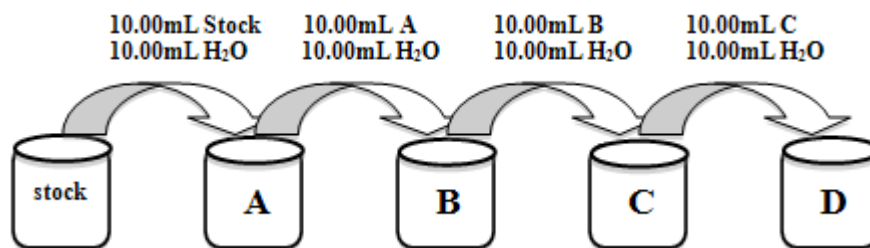


Group Members: _____

Beer-Lambert Calibration Curve

1. Label 5 beakers, stock and “A” through “D” and fill the stock beaker to about 30 mL with the stock dye solution assigned to your team.
2. Obtain two 10-mL graduated cylinders. Label one graduated cylinder dye and the other deionized/distilled water.
3. Rinse the dye graduate cylinder with the stock solution then use the dye graduated cylinder to transfer 10.00 mL of the stock dye solution into beaker A.
4. With the deionized/distilled water graduated cylinder, add 10.00 mL of deionized/distilled water to beaker A.
5. Repeat this procedure three more times using solution A to prepare solution B and solution B to prepare solution C, and solution C to prepare solution D. Each time rinse the dye graduated cylinder with 1 mL of solution being diluted.

This is known as a serial dilution.



The stock solution will have a concentration value given in **Molarity** (M) which is moles of Dye per Liter of solution.

What **color** is your dye? _____

What is the concentration of your assigned stock solution? _____ M

	Molarity (M) $M_1V_1 = M_2V_2$	% T	Absorbance $A = 2.00 - \log(\%T)$
Solution A			
Solution B			
Solution C			
Solution D			

What is the Analytical Wavelength for your assigned Dye? _____ nm

Linear Regression Equation for Absorbance vs. Concentration graph.

Correlation Coefficient _____