# Using the Mohr pipet

1. Watch the three minute Youtube video: http://www.youtube.com/watch?v=NeGmRo_NRpc Watch this particular video. Especially note how the instructor uses her index finger to control the flow of the solution. When you practice this, try easing up ever-so-slightly with your finger on the far side of the pipet top – allowing the solution to drain slowly. You can quickly stop the delivery by pushing down firmly on the pipet top. *IMPORTANT: Delivering solutions with the Mohr pipet is different from the volumetric pipet: with the Mohr pipet, you do not drain the pipet into the destination flask!* The delivered volume is calculated by difference ($V = V_f - V_i$).

2. Before you use a Mohr pipet, you will need to calculate how much of a liquid you wish to use. In the example below, we see how to transfer 2.72 mL.

> a. Rinse the pipet as per the Youtube video.
> b. First, the pipet is filled past the 0.00 mL mark and then slowly drained to the 0.00 mark (left figure) into a waste container.
> c. Now you are ready to transfer the 2.72 mL to the flask in which you want the solution. Allow the pipet to drain from 0.00 mL to your goal, 2.72 mL as shown in the figure at right. Note the numbers increase going down, the opposite of a thermometer, but like a buret. Slow down as you get close.
> d. The remaining solution (the pipet is still mostly full) is transferred back to the solution from which it came. Clean the pipet with distilled water.
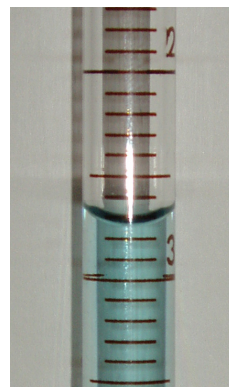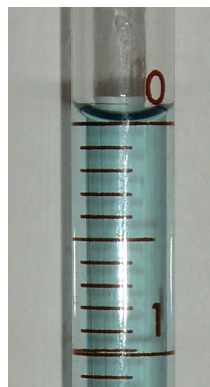
Test yourself: Obtain a medium-sized weighing dish and a 10.00 mL pipet. Pick a volume between 1.0 and 4.0 mL. Write that number here. It should be to the hundredths place, such as 3.24 mL

Transfer this volume of water to the weighing dish.

Go to the top-loading balance, Place the dish with water on the balance and push Tare. Yes, this seems odd, but do it this way this time! Remove the dish, drain the water (every last drop) and return the empty dish to the balance. It will now read the negative of your water's mass. Ignore the negative. Write that number here (as a positive number):

Use volume = mass / density to calculate the volume transferred. The density of water between 22 and 25 °C is 0.997 g/mL.

Calculate your percent error using % error = (your volume – desired volume)/desired volume

Show this to your TA for approval. TA initials approval here:

If you want more practice (Mohr practice?), repeat with a volume between 6 - 9 mL.