← How to use this form

Certified Reagent Operation Form

First-year Chemistry

☐ **Pipetting a Liquid** ☐ Mass of liquid transferred is measured on a balance and documented properly (assume a density of 1.00 g/mL) ☐ All measured volumes are within ±5% with respect to the target volume ☐ No liquid is spilled on the bench surface ☐ No obvious errors are committed, particularly contamination	☐ **Weighing a Solid** ☐ Measured mass of solid is documented properly ☐ No solid is spilled in the balance ☐ Solid is transferred *only* off the balance and spillage is minimal ☐ All measured masses are within ±5% with respect to the target mass (or, all masses round to the target mass in the protocol) ☐ No obvious errors are committed
☐ **Volumetric Preparation of a Solution** ☐ Stock solution or solid solute is transferred to volumetric flask without spillage ☐ Solvent is added to the volumetric flask to bring the solution volume *exactly* to the mark. Reject the operation if the bottom of the meniscus is not sitting on the mark! ☐ Flask is capped and inverted three times to mix the solution ☐ Completed solution is free of debris and homogeneous	☐ **Obtaining a Visible Absorption Spectrum** ☐ Deionized water blank is obtained ☐ Cuvette is filled at least 2/3 full with the solution to be analyzed ☐ Cuvette is appropriately aligned with the incident light beam ☐ Wavelength of maximum absorbance (with units) and maximum absorbance value are appropriately documented ☐ Spectrometer is returned to the LabQuest box at the end of lab
☐ **Titration to an Endpoint** ☐ Buret is filled and titrant is delivered without spilling ☐ Initial and final volumes are recorded to appropriate precision ☐ Titration is halted *exactly* at the endpoint (i.e. the endpoint is not overshot) ☐ Re-filling the buret with titrant is not necessary	☐ **Heating a Solid with a Bunsen Burner** ☐ Apparatus includes crucible with lid, clay triangle, ring stand and ring, Bunsen burner, and tubing ☐ Initial and final masses are recorded to appropriate precision ☐ Bunsen burner is set to produce a flame of moderate size with a clearly visible inner blue cone ☐ Crucible is positioned at the tip of the inner blue cone of the flame

Operator's Name _____ Signature _____

Observer's Name _____ Signature _____

TA's Signature _____

Today's Date _____

Submission Instructions. The student performing the operation should scan and submit completed form(s) for the current experiment using the Certified Reagent Operations assignment for the current experiment on Canvas.