



## General Chemistry 1

**Part 1: Analytical balance**

## 1a) Mass of a penny

Trial #	Mass(tare) in g	Mass (gross) in g	Mass (net) in g
1			
2			
3			

Combined results:  $m = ( \quad \pm \quad ) \text{ g}$

## 1b) Mass of a solid

Mass of paper (g)	Mass of powder on paper (g)	Mass (net) of powder (g)	Mass of beaker (g)	Mass of powder in beaker (g)	Mass (net) of powder (g)

What are the challenges in determining the mass of a powder? Discuss by looking at differences in mass of powder before and after transferring from weighing paper to beaker.

1c) Mass of 10 mL in graduated cylinder  $m = ( \quad \pm \quad )$

**Part 2: Drops**

a) Volume of a drop of water: Beaker:

Transfer pipette:

Glass dropper:

## b) Colored solutions

What trends did you notice (give evidence)?

What method was more consistent? Why do you think?

### Part 3: Volumetrics

Container	V(before) in mL	V(after) in mL	V(water) in mL	Result in mL
10 mL cyl				V = (            ±            )
beaker				V = (            ±            )
100 mL cyl				V = (            ±            )

Which volumetrics are “to contain” and which are “to deliver”?

Order the volumetrics from most accurate to least accurate, giving evidence you collected.

### Part 4: Mixing

4a) What happened, and why do you think it did?

4b+c) If you had to mix two liquids, which container and which method of mixing would you use? Explain.

**Reflect** on your experience today (use the prompt your instructor put on the board)