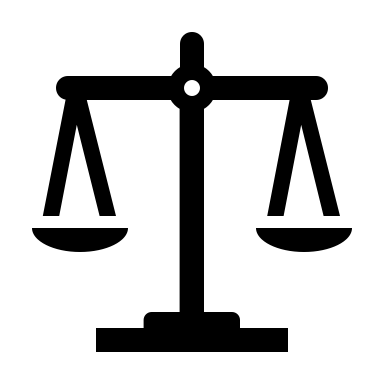
Supplies and Logistics

Some notes for Day 1:

Types of Learning Objectives

* Idea:
* These objectives are intended to develop students’ ways of thinking about ideas. To master an idea objective, students should be able to:
* Tool:
* These objectives are specific procedures or sequences that students can learn. To master a tool objective, students should be able to:
  + Recognize when that tool is useful or necessary
  + Distinguish between surface-level notation and the underlying steps (for example, the arrows we use in the distributive property are useful, but not necessary)
  + Use the tool successfully by achieving the “answer” to a problem or question

Mathematical Strands

 **Equivalence:**

Students often enter our course without much understanding of equality. They see the “equals sign” as a cue to “find the answer” but do not think about the value or the amounts represented on each side of the equation.

A deeper underlying issue here is that students do not know when they can and cannot substitute one expression for another. When two things are equivalent, we can rewrite one thing as another. This is a useful tool for solving problems.

A central theme in our course is helping students to develop the concept of equivalence. Learning objectives in this strand may:

* Emphasize the equivalence of different ways to represent a specific value
  + e.g. fractions vs decimals
* Emphasize the equivalence of different operations and procedures
  + e.g. rewriting multiplication as repeated addition
* Emphasize the equivalence of different language/concepts underlying an operation
  + e.g. fractions as ratios vs fractions as division problems
* Take advantage of equivalence to solve problems intuitively
  + e.g. this version looks friendlier than that one, so I’ll use this one