

# One Day Math



## 0.6 CECs, Water Technical

*You must attend the entire class to earn the CECs*

This class starts with basic math concepts such as “how to use a calculator”, “how to solve for X” and “how to use and apply mathematical formulas”. We then go into practical mathematics for water operators, starting with basic concepts on day one and advancing to mathematics needed for the seasoned operator, such as the allowable leakage calculation for new water mains and the basic Bernoulli equation.

Goal: To give operators a basic mathematical foundation that will allow them to approach any math problem with confidence. To inspire students to believe that a math problem is “just a problem” that can be approached and solved like any problem they encounter.

### Agenda Day 1: Limited Treatment

8:30am – 10am	Areas, volumes, conversions and how to use formulas
10:15am – 11:45am	Chemical feed, calculating pounds and ppm of chlorine Hydraulic calculations including flow and velocity rates
11:45am	Lunch (provided)
12:30pm – 2pm	Horsepower calculations, including electrical cost calculations PSI and specific well capacity calculations
2:15pm – 3:45pm	Bernoulli equation Allowable leakage and detention time calculations
3:45pm	Adjourn



**About your instructor:** Mike Engels provides mathematics instruction to water and wastewater operators across Michigan. Time after time, students in those courses express their gratitude to Mike for his ability to convey mathematics in a way they can understand.