



Harris Jumpstart 2020

Topics

Week 1:

Day 1:

- Motivation: Why do we need math in public policy? Why Algebra specifically?
- Basics: Order of Operations, Variables, Distributive Property
- Fractions Part 1: Adding, subtracting, multiplying and dividing fractions

Day 2:

- Fractions 2: Variables, Cancelling rules
- Exponents: Basic rules, Negative and fractional exponents, Radicals

Day 3:

- Modeling Real World (With Interesting Examples)
- Linear Functions and Equations
- Graphing and Interpreting Lines

Day 4:

- Finding the Equation of a Line
- Quadratic functions: Factoring, Standard Form, X-intercepts, Applications

Day 5:

- Inverse Functions
- Introduce Systems of linear equations using a supply-demand example

Week 1 HW: Finish relevant DiagKNOWstics modules over the weekend.



Week 2

Day 1:

- Inverse Function Example Problems with Graphing
- System of Linear Equations (Substitution Example)

Day 2:

- Absolute Values
- Modeling and solving inequalities
- Combine Absolute values with inequalities

Day 3:

- Summation and Product notation with Examples
- Exponential vs Power Functions
- Logarithms to solve exponential equations.

Day 4:

- Nonlinear equations
- Piecewise functions with Examples

Day 5:

- Self-Assessment Review
- General Q and A and review
- What to look out for during math camp, and what to practice on in the meantime