



Intro to Algebra 5-6 Online Syllabus

Course Goals

1 Solving Equations and Checking Work

The first week is focused on solving equations and using substitution to check work. This is one of the most important skills for algebra readiness. By the end of the course, students will feel very confident solving for unknown values using the inverse operations, SADMEG, the distributive property, and combining like terms.

2 Multiple Forms of Representations

During the second week, the focus shifts to representing and manipulating functions in a variety of contexts. Through repeated exposure, practice, and connections, students develop fluency with navigating back and forth between graphical, tabular, word, and equation representations of functions. This improves problem-solving efficiency.

3 Accelerated Content

Students are exposed to content that is above their grade level.

Course Topics

1 Order of Operations

Students review/learn the order of operations using the PEMDAS method.

2 One-Step Equations

Students learn how to solve one-step equations where addition, subtraction, multiplication, division, and fractions are involved.

3 Two-Step Equations

Students learn to solve simple and complicated two-step equations using the SADMEG method.

4 Multi-Step Equations

Students learn to apply combining like-terms and the distributive property to solving multi-step equations.

5 Additive and Multiplicative Functions

Students learn about the difference between additive and multiplication functions within the context of the Rule of 4. The Rule of 4 is representing functions tabularly, graphically, algebraically, and verbally.

6 Linear Equations

Students learn about slope, y-intercept, and graphing linear equations.

7 Inequalities

Students learn to solve one-step, two-step, and multi-step inequalities. Students then graph these solutions on a number line. Students also learn to graph inequality relationships on the coordinate plane (x, y plane).

8 Function Operations

Students learn to add, subtract, multiply, divide, and compose functions. Students also evaluate these new functions for inputs.

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