Unit Description

Addressing Misconceptions when Solving Multi-Step Linear Equations

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In my experience, I have observed students struggling with certain mechanics of the process of solving equations. Most students are able to grasp simple equations; however, when more complex multi-step equations are encountered, many students get confused and frustrated when trying to isolate the variable in question. This unit has a focus of solving multi-step linear equations while addressing the mistakes that students typically make when developing the skills needed to successfully solve multi-step linear equations. This unit attempts to combat the typical errors made when solving equations so that students may be successful in solving equations, because a conceptual understanding for solving multi-step equations is essential to most high school math courses. The unit emphasizes properties of equalities and operations with real numbers. The aim of this unit is for students to become familiar with solving equations that require more than two steps, understand that each term within an equation has either a positive or negative coefficient which will impact how the equation is solved, and finally to analyze the differences between solving equations that have like terms on the same side of an equation when compared to equations with like terms on different sides.