

Objective

By the end of this lesson, you will be able to solve basic algebraic equations using one variable.

Materials and Prep

- Pencil and paper
- Basic understanding of arithmetic operations (addition, subtraction, multiplication, division)

Activities

1. Warm-up: Review the order of operations (PEMDAS) with some simple arithmetic problems.
2. Introduction to solving equations: Explain the concept of isolating the variable and demonstrate solving simple equations like $2x + 5 = 11$.
3. Guided practice: Work through a few examples together, allowing the student to participate in solving the equations step by step.
4. Independent practice: Provide a set of equations for the student to solve on their own, offering assistance as needed.

Seventh Grade Talking Points

- "In algebra, we use letters to represent unknown numbers or variables. For example, in the equation $2x + 5 = 11$, 'x' is the variable we need to find."
- "To solve an equation, we want to isolate the variable by performing the same operations on both sides of the equation to keep it balanced."
- "Remember, whatever we do to one side of the equation, we must do to the other side to keep it balanced. It's like a seesaw - we want to keep it level."
- "When solving equations, it's important to follow the order of operations (PEMDAS) to simplify expressions and solve for the variable."