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**U1 CW #2** *Solving One- and Multi-Step Equations*

So far we have been working with expressions. We reviewed how to **simplify** a linear expression and how to **evaluate** a linear expression for a given value of *x*. We will now begin our work with linear equations. A **linear equation** is a statement that two linear expressions are equal to each other. When we **solve** a linear equation, our task is to find the solution. The **solution** to an equation is a number that makes the equation true when substituted for the variable or unknown value.

It is important to note that when we create an equation, the two expressions on either side of the equal sign might be true for 1) **one value of *x***, 2) **no values of *x*** (there is not a number that can be substituted for the variable to make the equation true), or 3) **all values of *x*** (every number we substitute in for the variable will make the equation true). In the first Unit, we will only study equations that have one solution.

To solve equations for a variable we use inverse operations to isolate, or get the variable all by itself on one side of the equal sign. **Inverse operations** are opposite **operations** that undo each other, they are a math procedure in reverse. Addition and subtraction are **inverse operations**. Multiplication and division are **inverse operations**.

Addition Subtraction

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Multiplication Division

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| How do we recognize addition in equations? | How do we recognize subtraction in equations? | How do we recognize multiplication in equations? | How do we recognize division in equations? |