Name_____ Pd_____ Date_____ **Section 1.C.1**

Define Algebraic Equations

An algebraic equation is a mathematical statement that says that the algebraic expression on one side of an equals sign HAS THE SAME VALUE AS the expression on the other side of the equals sign.

Solve 1-Step Equations: Addition & Subtraction

Scenario	Anticipate the Answer	Write and Solve Algebraic Equation
Sam buys a t-shirt. He has a coupon for $5 off. He spent $8. What was the original price of the t-shirt?		
Sarah has 2 apples. Her uncle brings home a bag of apples. Now she has 7 apples. How many apples were in the bag?		
Michael owes Derek $7. After he gets paid to dog-walk, Michael pays his debt and has $8 left. How much did Michael get paid?		

What do you notice?

**To get rid of positives, use _____.

**To get rid of negatives, use_____.

Example	Words	You Try
1) $-7 = r + 16$	What's happening to the variable? How do we undo that?	4) $5 = n + 9$
2) $-4 + x = 1$	What's happening to the variable? How do we undo that?	5) $-2 + c = 7$
3) $y - (-3) = 8$	What's happening to the variable? How do we undo that?	6) $p - (-2) = -1$

Solve 1-Step Equations: Multiplication & Division

Scenario	Anticipate the Answer	Write and Solve Algebraic Equation
Harry earns $8 for each hour he works at his job. He earned $48 today. How many hours did he work?		
Jimmy has a pile of candy that he splits into 10 piles. Each pile has 5 pieces. How many pieces were in the original pile?		

What do you notice?

**To undo multiplication, use _____.

**To undo division, use_____.

Example	Words	You Try
7) $3h = -9$	What's happening to the variable? How do we undo that?	10) $-4x = 20$
8) $\dfrac{n}{-5} = 2$	What's happening to the variable? How do we undo that?	11) $\dfrac{d}{4} = -8$
9) $-4 = \dfrac{h}{6}$	What's happening to the variable? How do we undo that?	12) $8 = \dfrac{y}{-7}$

Key Ideas:

Solving an equation for a variable means _____.

To do that, we use the _____ on _____ sides.

Addition and subtraction _____ each other. Multiplication and division _____ each other.

We want the constant term to equal _____.

We want the variable term to have a coefficient of _____.