

Warm-Up

1. List the properties used for each step of the problem showed below:

$-3m - 12 - (-m) = -18$	
$-3m - 12 + m = -18$	
$-2m - 12 = -18$	
$-2m = -6$	
$m = 3$	

2. What is the difference between an expression and an equation?
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Homework Check


Multi-Step Equations Worksheet



Pop Quiz - Properties of Equalities and Multi-Step Equations

You do not need anything on your desk except a pencil.
There is enough room to show your work on the quiz.

This quiz only has 3 questions and should not take longer than **10 minutes** to complete.



Looking ahead...

Today → 9/21 Solving Equations with Variables on Both Sides

Monday → 9/24 Literal Equations (Day 1)

Tuesday → 9/25 Literal Equations (Day 2)

Wednesday → 9/26 MAPs Testing

Thursday → 9/27 Word Problems

Friday → 9/28 Unit 2 Review Day

Monday → 10/1 Unit 2 Test



Solving Equations with Variables on Both Sides

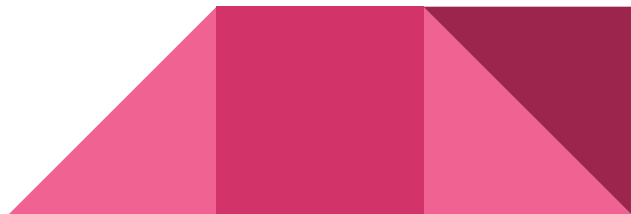
September 21, 2018

You actually encountered some equations that had variables on both sides of the equation for homework!



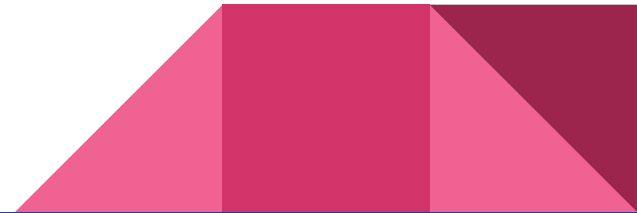
When you have an equation with variables on both sides of the equation...

1. Simplify both sides as much as possible (combine like terms, distribute, etc.)
2. Move the variable so that it is only on one side by adding or subtracting
3. Solve like you would any other multi-step equation



Let's watch a quick video example...

<https://www.youtube.com/watch?v=wShnYemlr28>



Let's try one as a class

$$5x+2=2x+14$$



Try one on your own/with your table group

$$2(5x-1)=3(x+11)$$



These problems are great because you can always check your answers!

“Freshness with a spin - plug it in, plug it in”



<https://www.youtube.com/watch?v=xF2-Gm-xwug>


Types of solutions

Often, when we solve an equation, we get an answer such as $x=6$.

Sometimes, though, we get weird answers like $4=8$ or $5=5$.

We actually have three “types of solutions” → one solution, no solution, or infinitely many solutions.

We will visit three stations to learn about each solution type.



Types of Solutions Stations

Instructions:

Visit each station.

Copy the definition.

Copy the example and solve.

Check your answer with the folder.

After the stations, please begin your homework (posted online).



Homework

Posted online → Solving Equations with Variables on Both Sides Worksheet

