

### Activity Checklist

#### Day 1



☐ Video With Guided Notes



☐ Practice — Levels 1-2

#### Day 2



☐ Algonautin Simulation



☐ Activity: Practice Makes Progress



☐ Practice — Levels 3-4

### Learning Objective:

- ☐ I can solve equations with a variable term on both sides of the equal sign.

### Necessary Skills:

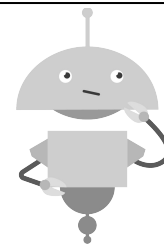
Before starting this lesson, you need to be able to solve one- and two-step equations.

### Which One Doesn't Belong?

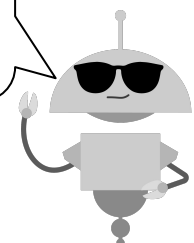
**Directions:** There are no right or wrong answers in this activity. The goal is to choose which equation you think **doesn't** belong with the others and explain **why**! Mia and her friend have shared their answers, so be sure yours is unique.

A			B
	$3x + 5 = 23$	$\frac{7 + 5h}{2} = 11$	
	$5 + 3n = 2n + 8$	$-45 = 3k$	
C			D

I think D doesn't belong, because it's the only one with a negative number.

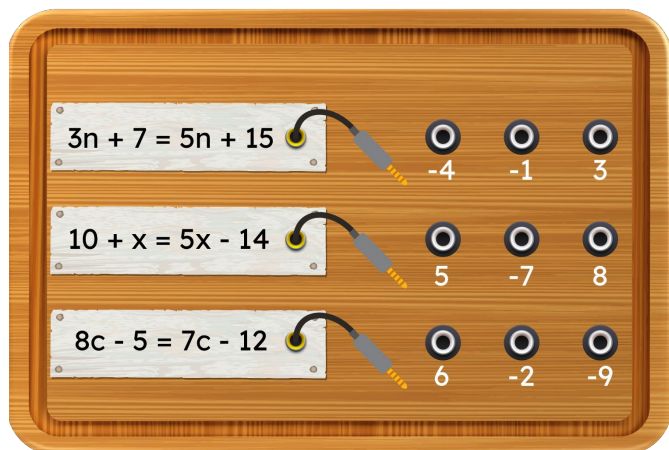


I think B doesn't belong, because it's the only equation where the variable doesn't have a coefficient of 3.



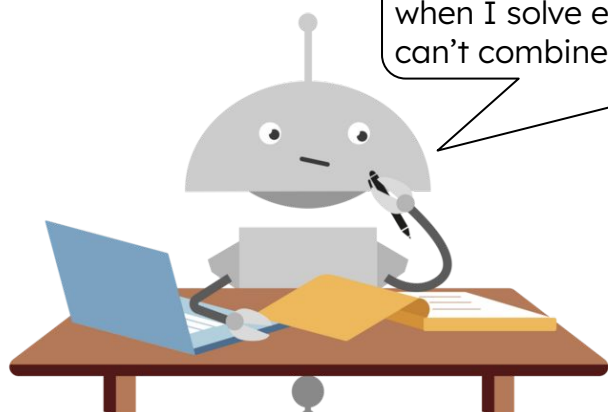


## Video With Guided Notes



Why can't Bea just combine all of the n-terms on one side in  $3n + 7 = 5n + 15$ ? (Think about what happens on the balance scale!)

**Solve  $3n + 7 = 5n + 15$ .**



I like to draw a vertical line through my equal sign when I solve equations. It helps me remember that I can't combine things across the equal sign.

$$3n + 7 = 5n + 15$$

In the way that works best for you, summarize how to approach equations when there is a variable term on both sides.

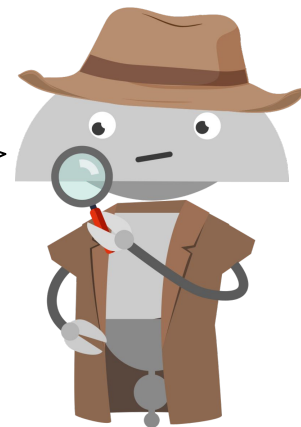
### Example Problems

1)  $10 + x = 5x - 14$

2)  $8c - 5 = 7c - 12$



I wonder how these are going to end up leading Bea out of Mathlock Mansion!



### Reflect on Your Learning

How confident are you in your understanding of this lesson's objective?

**I can solve equations with a variable term on both sides of the equal sign.**

☐ I feel confident! 😊

☐ I feel so-so. 😐

☐ I feel confused. 😞



## Activity: Practice Makes Progress

**Directions:** Solve each of the following problems to practice working with equations that have variables on both sides of the equal sign.

1. $5d - 17 = d - 5$	2. $10 + 2k = k + 5$	3. $6v - 30 = -6 + 4v$
4. $11 + 4c = 2c - 9$	5. $4w - 2 = 7w + 22$	6. $12 + r = 3r - 6$



Flip the page over to check your answers to this activity!

4. $c = -10$	5. $w = -8$	6. $r = 9$
1. $d = 3$	2. $k = -5$	3. $v = 12$