

## Lesson A2: Making Sense of Expressions



This symbol means to stop and share your responses with your partner. If you have different responses, try to come to a consensus.

1. Play with the [sim](#) for 5 minutes. Write down three questions or observations that you have.



2. Check the “all coefficients” checkbox ☒ all coefficients and play with the sim. How would you describe a **coefficient**?



A coefficient is...

3. How do you change a coefficient?



4.  $3$ ,  $z$ , and  $-2x^2$  are all **terms**. Use the sim to build three more examples of **terms** and share them below. How would you describe a **term**?

1)

2)

3)



A term is...

5. When you overlap two terms, sometimes the sim shows a yellow glow. What is happening?

6. When you overlap two terms, sometimes you *can't* get a yellow glow.  
What is happening?

7.  $x^2 - 2x^2 + y$  is an **expression**.  
Create an equivalent expression and confirm using the sim.

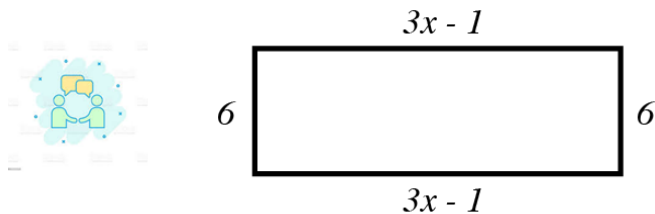


8. Write an **equivalent expression** for each of the following and justify why they are equivalent by using the sim, evaluating, or explaining:

Expression	Equivalent Expression	Justify why they are equivalent
a. $7x - 5x$		
b. $6y + 7y - 10$		
c. $2(x + 5)$		
d. $y + 4 + 3(y + 2)$		

9. Challenge problem:

Write an expression for the perimeter of this shape and **simplify** it.



10. Play the game!