


THE DISTRIBUTIVE PROPERTY

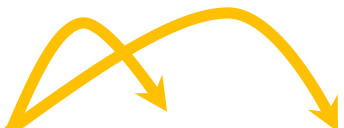
$$a(b+c) = ab+ac$$

An algebra property which is used to multiply a single term and two or more terms inside a set of parentheses.

“GET RID OF PARENTHESES!”

$$a(b+c) = ab+ac$$


When two things are next to each other it means **MULTIPLICATION!**

$$\begin{aligned} a(b+c) &= a(b)+a(c) \\ &= ab+ac \end{aligned}$$


Simplify the equation:

$$-2(x+5)-4x$$

$$(-2)(x)+(-2)(5)-4x$$

Step 1: Distribute

Note: Keep the negative sign with the 2

$$-2x+(-10)-4x$$

Step 2: Simplify

$$-6x-7$$

Step 3: Combine like terms

$$x-4(x-7)$$

$$x-4(x)-(-4)(7)$$

Step 1: Distribute

Note: Keep the negative sign with the 4

*Only distribute the 4 because it is touching the parenthesis

$$x-4x-(-28)$$

Step 2: Simplify

Note: $-(-x) = +x$

$$-3x+28$$

Step 3: Combine like terms

A Problem A Day!

1. $-2(x+7)$

2. $x-3(x-4)$

3. $3(2-x)-x$

4. $-6(x+1)+x$

5. $-3(5-x)$

6. $15-x(x-4)$

7. $-(4-x)$