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!”

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

\[ a(b + c) = a(b) + a(c) = ab + ac \]
Simplify the equation:

\[-2(x+5)-4x\]

\[(-2)(x)+(-2)(5)-4x\]

\[-2x+(-10)-4x\]

\[-6x-7\]

**Step 1: Distribute**
Note: Keep the negative sign with the 2

**Step 2: Simplify**

**Step 3: Combine like terms**
Step 1: Distribute
Note: Keep the negative sign with the 4
*Only distribute the 4 because it is touching the parenthesis

Step 2: Simplify
Note: \(- (-x) = +x\)

Step 3: Combine like terms

\(-3x + 28\)
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. \(-(4-x)\)