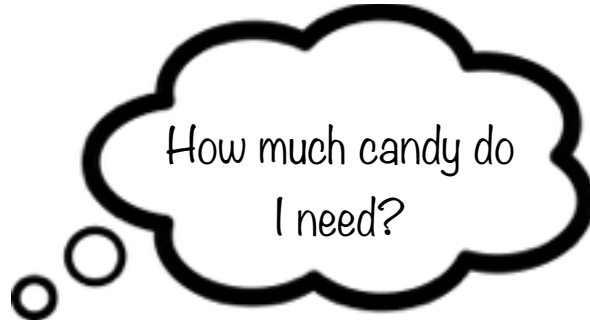


The Distributive Property



I want to give this candy to each of my three friends



$$3(\text{candy items}) = ?$$

Let's start by drawing out all of the candy I need



Now let's sort the candy by type



The Distributive Property: Candy

$$3 \left(\text{candy} + \text{chocolate} + \text{chocolate} + \text{chocolate} + \text{Bubble Gum} + \text{Bubble Gum} \right) =$$



Okay! So I need:

$3 \times 1 = 3$ wrapped candies

$3 \times 3 = 9$ chocolates

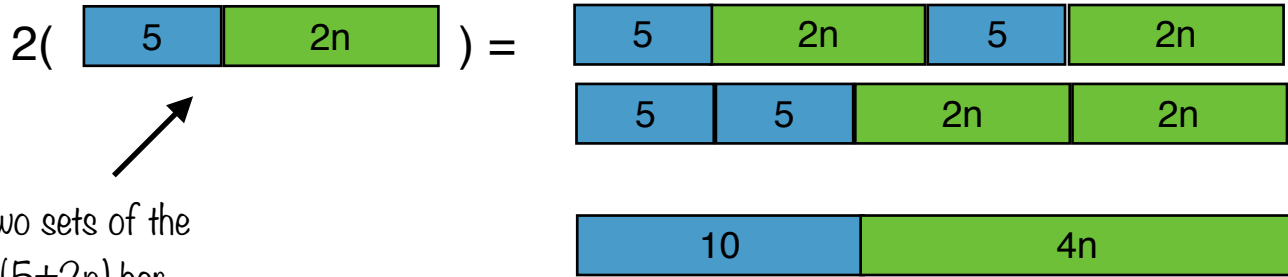
$3 \times 2 = 6$ packs of bubble gum

The Distributive Property: Algebra

$$n (a + b + c) = n \times a + n \times b + n \times c$$

The Long Way

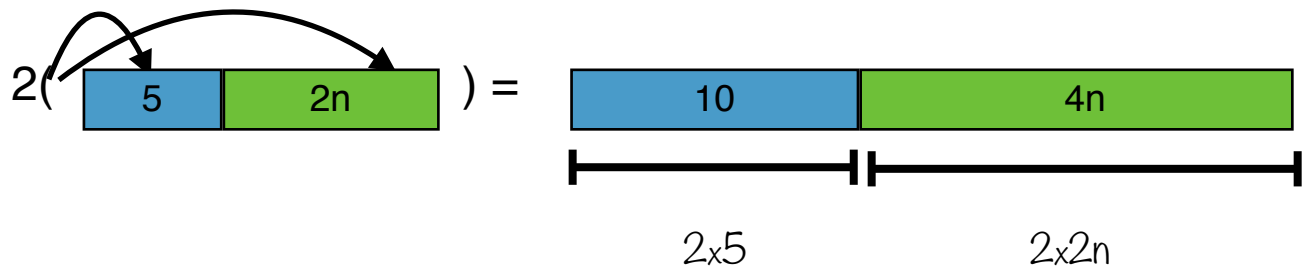
$$2(5+2n) = 10 + 4n$$



Two sets of the $(5+2n)$ bar

Using the Distributive Property Shortcut

$$2(5+2n) = 10 + 4n$$



Practice: Model The Long Way

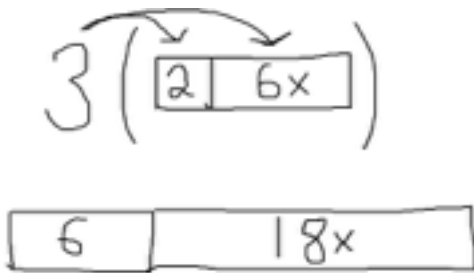
<p style="text-align: center;">$3(2+6x)$</p> <p style="text-align: center;">$3(\boxed{2} \boxed{6x})$</p> <div style="display: flex; justify-content: space-around; border: 1px solid black; padding: 5px;"> 2 6x 2 6x 2 6x </div> <div style="display: flex; justify-content: space-around; border: 1px solid black; padding: 5px; margin-top: 5px;"> 2 2 2 6x 6x 6x </div> <div style="display: flex; justify-content: space-around; border: 1px solid black; padding: 5px; margin-top: 5px;"> 6 18x </div>	<p style="text-align: center;">$2(7+d)$</p>
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$$3(2+2d)$$

$$2(b+3)$$

Practice: Model using the Distributive Property

$$3(2+6x)$$

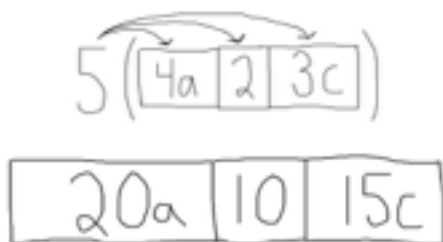


$$2(7+d)$$

$$5(4+3a)$$

$$6(4a+2)$$

$$5(4a+2+3c)$$



$$3(5x+2y+4)$$