

Distributive Property

Used to Solve Mental Math Calculations:

Example:

$$12 \cdot 52 = 12(50 + 2) = 12 \cdot 50 + 12 \cdot 2 = 600 + 24 = 624$$

Numbers:

$$2(4 + 3) = 2 \cdot 4 + 2 \cdot 3 = 8 + 6 = 14$$

$$2(4 - 3) = 2 \cdot 4 - 2 \cdot 3 = 8 - 6 = 2$$

Algebra:

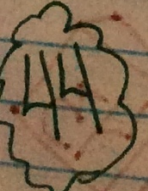
$$2(y + 3) = 2 \cdot y + 2 \cdot 3 = 2y + 6$$

$$(y - 3)2 = 2 \cdot y - 2 \cdot 3 = 2y - 6$$

Distributive Property

Words:

To Multiply a Sum or difference by a number, Multiply each Number in the Sum or difference by the Number Outside the Parentheses. Then Evaluate.



Simplifying Expressions

by Combining "Like" Terms...

Ch. 6 L. 7
Pg. 495
6.EE.2
6.EE.3
6.EE.4

Like Terms: Terms with the Same Variable and the Same EXACT POWERS.

Simplify: Get rid of the Parenthesis and Combine the Like terms.

Examples: $\boxed{2y} + \boxed{4y} + 3x$ \square - Combine Like Terms
 $\boxed{6y + 3x}$ \leftarrow Simplified Expression

: $\boxed{16} + (v + \boxed{4})$ \square - Combine Like Terms
 $16 + 4 = 20$
 $\boxed{20 + v}$ \leftarrow Simplified Expression

: $\boxed{3x} + (\triangle \boxed{6y} + \boxed{2x}) + \triangle y$
 $3x + 2x = 5x$ \triangle & \square - Combine Like Terms
 $6y + 1y = 7y$
 $\boxed{5x + 7y}$ \leftarrow Simplified Expression

: $\boxed{4} \cdot (x \cdot \boxed{5}) \cdot x^2$ \square - Combine Like Terms
 $4 \cdot 5 = 20$
 $\boxed{20 \cdot x \cdot x^2}$ \leftarrow Simplified Expression

: $(\boxed{4x} \cdot \boxed{2x}) \cdot 3y \cdot 3y^2$ \square - Combine Like Terms
 $4x \cdot 2x = 8x$
 $8x \cdot 3y \cdot 3y^2$ \leftarrow Simplified Expression

