

Notes
Pre-Algebra
Distributive Property

To Distribute means to give some to each and every one.
It can also mean multiple groups of something.

Example: $2(3x + 5)$ means two of the groups of $3x + 5$.

$$\begin{array}{rcl} \text{or} & 3x + 5 & \text{or } 2(3x + 5) = \underline{2} \cdot 3x + \underline{2} \cdot 5 \\ & + \underline{3x + 5} & = 6x + 10 \\ & = 6x + 10 & \end{array}$$

$(4b - 1)3$ means 3 groups of $4b - 1$

$$\begin{array}{rcl} \text{or} & 4b - 1 & \text{or } (4b - 1)3 = \underline{3} \cdot 4b + \underline{3} \cdot -1 \\ & 4b - 1 & = 12b + -3 \\ & + \underline{4b - 1} & \\ & = 12b - 3 & = 12b - 3 \end{array}$$

$$\begin{array}{l} \text{Ex. } -2x(x - 5) = \underline{-2x} \cdot x + \underline{-2x} \cdot -5 \\ \quad \quad \quad = -2x^2 + 10x \end{array}$$

$$\text{Ex. } -(y + 2z) = -1(y + 2z) = \underline{-1} \cdot y + \underline{-1} \cdot 2z = -y + -2z = -y - 2z$$