

Sect. 2.5

Apply the Distributive Property

The distributive property is used to find the product of a number and a sum or difference.

Ex

$$3(x+2)$$
$$3(x-2)$$

We distribute the 3 to both terms within the parentheses.

$$3(x+2) = 3x + 3(2) = 3x + 6$$

equivalent expressions

$$3(x-2) = 3x - 3(2) = 3x - 6$$

equivalent expressions

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Examples:

a) distribute the n

$$n(n+5) = n^2 + 5n$$

b)

$$(n-5)n = n^2 - 5n$$

c)

$$-(3y-9) = -1(3y-9) =$$

distribute -1

$$\rightarrow -3y + 9$$

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Recall how to simplify expressions:

1) Eliminate parentheses by applying the distributive property

2) Combine like terms

Ex. $6(x+3) - 2(8+x)$

Step 1 $6x + 18 - 16 - 2x$

Step 2 $4x + 2$

no (), no like terms
That's as simple as it gets.