
I can ***use the distributive property.***

Distributive Property

You can multiply a sum by multiplying each addend separately and then adding the products.

The Distributive Property is handy to help you get rid of parentheses.

$a(b + c) =$ $ab + ac$

Why Use It?

1. Simplifying algebraic expressions
2. Make multiplication of large numbers easier

For example:

$5(42) = 5(40 + 2) = 5(40) + 5(2)$

Examples:

1) $4(34) = 4(30) + 4(4)$ $= 136$

2) $5(58) = 5(50) + 5(8)$ $= 290$

Distributive Property with Numbers

Example: Simplify the expression using the distributive property: $2(11 + 4)$

$2(11 + 4) = 2(11) + 2(4) = 22 + 8 = 30$

Further Examples:

a. $3(b + 4) = 3b + 12 = 3b + 12$

b. $5(30 + 6 - 1) = 150 + 30 - 5 = 175$

c. $-(2 + 9) = -2 - 9 = -11$

d. $-7(5x + 8) = -35x - 56 = -35x - 56$

e. $10(7 - 2) + 6 - 4 =$ $70 - 20 + 6 - 2 = 54$