

Accuplacer Study Modules
TOPIC: Distributive property

Khan Academy Link: <https://www.khanacademy.org/math/pre-algebra/pre-algebra-arithmetic/pre-algebra-distributive-property/v/the-distributive-property>

Steps for distributive property over addition

STEP 1: Work with the first set of parentheses.

STEP 2: Multiply each term by the coefficient.

STEP 3: Repeat steps 1 and 2 as needed.

STEP 4: Combine the pieces and simplify.

Sample problem: Simplify $4(5x + 3) + 3(2x - 5)$.

STEP 1: Work with the first set of parenthesis.

$$4(5x + 3)$$

STEP 2: Multiply each term by the coefficient of the parenthesis.

$$4*5x + 4*3$$
$$20x + 12$$

STEP 3: Repeat steps 1 and 2 with the second set of parenthesis.

$$3(2x - 5)$$
$$3*2x - 3*(5)$$
$$6x - 15$$

STEP 4: Combine the pieces and simplify.

$$20x + 12 + 6x - 15$$
$$26x - 3$$

1. Simplify completely.

$$2x + 5(x - 3)$$

2. Simplify completely.

$$3 - 5(4x - 1) + 2x$$

3. Simplify completely.

$$5x^2 - 2x(x + y)$$

4. Simplify completely.

$$2x(x + y) - 4(1 - xy)$$