

Name: _____ Class: _____

For more complex distributive problems, follow these three steps:

First, multiply the signs.

If the signs are the same, the product is positive. ($+$ \cdot $+$ = $+$ and $-$ \cdot $-$ = $+$)

If the signs are opposite, the product is negative. ($+$ \cdot $-$ = $-$ and $-$ \cdot $+$ = $-$)

Write down the sign.

Second, multiply the numbers.

Since you've already multiplied the signs, just multiply the numbers and write the product after the sign. If there is only one number, write it down. There may be no number.

Third, multiply the variables (letters).

$a \cdot b = ab$ $ac \cdot bd = abcd$ (typically listed in alphabetical order)

$c \cdot c = c^2$ For $d^2 \cdot d^4$, add the exponents, because $d^2 = d \cdot d$, and $d^4 = d \cdot d \cdot d \cdot d$, so $d^2 \cdot d^4 = (d \cdot d) \cdot (d \cdot d \cdot d \cdot d) = d^{2+4} = d^6$

1. $-3(x - 2) =$ _____

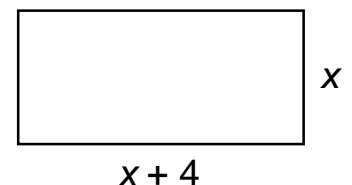
2. $2a(a + b - c) =$ _____

3. $3(-4 + x^2 - 3y) =$ _____

4. $m^2n(mp - n^3 + mnp^2) =$ _____

5. $4ab(2a - 7b) =$ _____

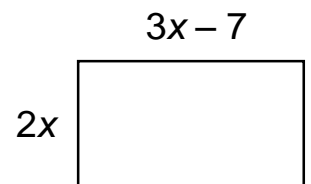
6. Find the area of the rectangle. ____ (____) = _____



7. $-6m^2n^3(-5mp - 3n^5) =$ _____

8. $-ab^2c^3(a^3b^2c - ac) =$ _____

9. $200xyz(-3wy + 2x^4z^2) =$ _____



10. Find the area of the rectangle. ____ (____) = _____