## Distributive Property... day 2

What does 3(5) mean?


What does 3(x) mean?


What does 3(5x) mean?


What about 3(x + y)?




shortcut: 3(x + y) = 3x + 3y

This is the distributive property!

Ex. 1  Simplify

a) 4(2a + b)

b) 2(4a - 3)

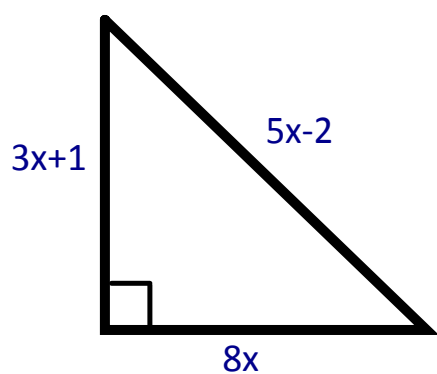c) -4(2a + b)

d) -2(4a - 3)

Ex. 2 Simplify

a) $2x(x + 1)$

b) $-3y(4x - 2y)$

c) $4a(2a^2 - 3ab^2) + 5b(a + 2ab)$

d) $6xy(2x^2 - y) - 3y(4x^3 - 5xy)$

Ex. 3:  Find the area and perimeter of the right angle triangle.



3x+1

5x-2

8x

Ex. 4:  Expand and simplify.

$$\frac{2}{3}(3m-2)-\frac{3}{4}(8m-2)+\frac{2}{3}(3m)+\frac{2}{3}(-2)-\frac{3}{4}(8m)-\frac{3}{4}(-2)$$

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