math Antics
Exercises

Name:

Date:

The Distributive Property

1 Apply the Distributive Property

$5(x + 3)$

$5(x) + 5(3)$

$5x + 15$

2 Apply the Distributive Property

$-8(a + b - c)$

$(-8)(a) + (-8)(b) + (-8)(-c)$

$-8a - 8b + 8c$

3 Apply the Distributive Property

$x(x + y)$

$x(x) + x(y)$

$x^2 + xy$

4 Apply the Distributive Property

$a(a^2 + a + 1)$

$a(a^2) + a(a) + a(1)$

$a^3 + a^2 + a$

5 Apply the Distributive Property

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

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

$12x^2 + 8x - 20$

6 Apply the Distributive Property

$2x(3x - 5y)$

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

$6x^2 - 10xy$

7 Apply the Distributive Property in reverse to factor out a '2' from this polynomial.

$2a^2 - 2b^2 + 2c^2$

$2(a^2 - b^2 + c^2)$

8 Apply the Distributive Property in reverse to factor out a '2' from this polynomial.

$8a + 10b + 2c$

$(2\times4)a + (2\times5)b + (2)c$

$2(4a + 5b + c)$

9 Apply the Distributive Property in reverse to factor out an 'x' from this polynomial.

$7x^3 - 8x^2 - x$

$x(7x^2 - 8x - 1)$

10 Can you factor anything out of this polynomial? If so, then go for it...

$6x^2 + 9x$

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

$3x(2x + 3)$

See Video for step-by-step solutions to each problem.