Math: Pre-Algebra Session #4

Combining Like Terms:

Combine the same variable *and* same exponent only!

Distributive Property

$(b + c) \cdot a = ba + ca$

↓

$(8 + 9) \cdot xy = 8xy + 9xy$

$5xy^4 + 2xy^4 =$ $7xy^4$

$(5+2)\,xy^4$

$2a^3 + a^3 =$ $3a^3$

$(2+1)\,a^3$

7x + 4x – 3

8x – 2x + 4 – 1

3x - 10 + 17

3(x+1) - 2

-2(x-1) + x

9 -3(2x+4) + 4x

2(-3x+5) - 6(x-1)

Area = (length) x (width)

Perimeter = (length) + (width) + (length) + (width)

$4x^2 + 3x - 2x^2 + 5x + 1$

$7x^2 + 3x^2 + 5x + 2 - 14$

$9x^2 - 1 + 11x - 9x^2 + x$

$-9x(11x + 1) - x^2(90x)$

$4\ (3x + 2x) – 5 + 7$

$6x(x^2 - 4\ x^2) + 3(5y – y)$

$-5x(3x+4x) + x^2 + 9$

$7x + 4x - 3 = 11x - 3$

$+8x - 2x + 4 - 1$

$(8-2)x + 3 = 6x + 3$

$2x - 3x = -1x = -x$

$x = 2$

$2 \cdot 2 - 3 \cdot 2 = -2$

$4 - 6 = -2$

$3x - 10 + 17 = 3x + 7$

$3(x+1) - 2$

$3x + 3 - 2 = 3x + 1$

$-2(x-1) + x$

$-2x + 2 + 1x$

$= -x + 2$

$$9 - 3(2x+4) + 4x$$

$$= 9 - 6x - 12 + 4x$$

$$= \boxed{-2x - 3}$$

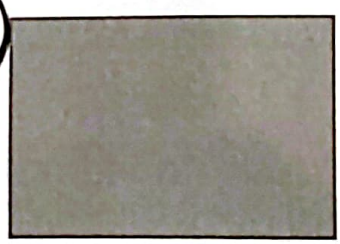
$$2(-3x+5) - 6(x-1)$$

$$= -6x + 10 - 6x + 6$$

$$= \boxed{-12x + 16}$$

Area = (length) x (width)

#1



4"

5"

$Area = l \times w$

$Area = 5" \cdot 4"$

$A = 20in^2$

#2

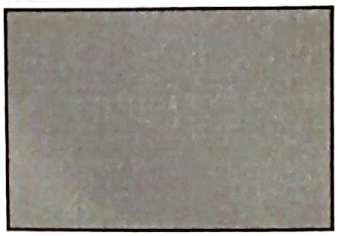
x

x-4

$Area = x(x-4)$

$Area = x^2 - 4x$

#3



10

x-2

$Area = (10)(x-2)$

$A = 10x - 20$

P: Perimeter = (length) + (width) + (length) + (width)

$P = 5" + 4" + 5" + 4"$

$P = 18$ inches

$P = (x+2) + x + (x+2) + x$

$P = 4x + 4$

$P = 2x + x + 2x + x$

$P = 6x$

$$4x^2 + 3x - 2x^2 + 5x + 1$$

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

$$= \boxed{2x^2 + 8x + 1}$$

$$7x^2 + 3x^2 + 5x + 2 - 14$$

$$= \boxed{10x^2 + 5x - 12}$$

$$9x^2 - 1 + 11x - 9x^2 + x$$

$$= \boxed{12x - 1}$$

$$-9x(11x+1) - x^{x \cdot x^2}(90x)$$

$$= -99x^2 - 9x - 90x^3$$

$$= -90x^3 - 99x^2 - 9x$$

$$4(3x+2x) - 5 + 7$$

$$= 4(5x) + 2$$

$$= 20x + 2$$

$$6x(1x^2 - 4x^2) + 3(5y - y)$$

$$= 6x(-3\overset{x \cdot x}{x^2}) + 3(4y)$$

$$= \boxed{-18x^3 + 12y}$$

$$-5x(3x + 4x) + x^2 + 9$$

$$-5x(7x) + x^2 + 9$$

$$-35x^2 + x^2 + 9$$

$$\boxed{= -34x^2 + 9}$$

$$2x^3(5 + x\,7x^3) + x$$

$$= 2x^3(5 + 7x^4) + x$$

$$= 10x^3 + 14x^7 + x$$

$$= 14x^7 + 10x^3 + x$$

$$100x(9x+2y)-17x$$

$$= 900x^2 + 200xy - 17x$$

$$5x^{xx}(12x^{xxx}-3)\,3x-9x$$

$$=(60x^5-15x^2)\,3x'-9x$$

$$=180x^6-45x^3-9x$$