

Are there any questions from last day's assigned work you would like to see on the board?

Last day's assigned work: **READ pp. 66-67**

pp. 68-69 # 1 - 10 *5a*

p. 70 # 1 - 4, 5abc, 6

Return and Correct SWYK 1.2

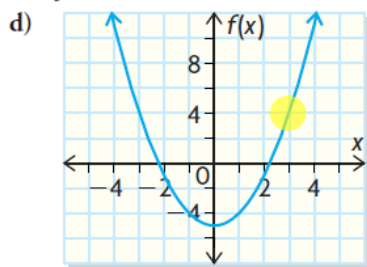
5. For each of the following, determine $f(3)$.

a) $f = \{(1, 2), (2, 3), (3, 5), (4, 5)\}$

b)

x	1	3	5	7
f(x)	2	4	6	8

c) $f(x) = 4x^2 - 2x + 1$



$y = f(x)$

$\hookrightarrow a) f(3) = 5$

$\hookrightarrow b) f(3) = 4$

$d) f(3) = 4$

$x = 3$, so what
is $f(3)$ or
what is y when $x = 3$

$c) f(3) = 4(3)^2 - 2(3) + 1$

$= 4(9) - 6 + 1$

$= 36 - 6 + 1$

$= 31$

$\therefore f(3) = 31$

Today's Learning Goal(s):

Date: Sept. 25/19
(Every lesson)

By the end of the class, I will be able to:

- multiply 2 binomials.
- expand and simplify the product of a monomial and two binomials.

2.1 Working with Quadratic Expressions

Recall: When multiplying, multiply the coefficients; and add the exponents if the variables are the same.

Ex.1 Multiply the following.

$$\begin{aligned} \text{a) } & 4x(3x-7) \\ & = 12x^2 - 28x \end{aligned}$$

$$\begin{aligned} \text{b) } & (3x-2)(4x+5) \\ & = 12x^2 + 15x - 8x - 10 \\ & = 12x^2 + 7x - 10 \end{aligned}$$

$$\begin{aligned} \text{c}_1) & (x+1)^2 \\ & = (x+1)(x+1) \\ & = x^2 + x + x + 1 \\ & = x^2 + 2x + 1 \end{aligned}$$

$$\begin{aligned} \text{c}_2) & (x+3)^2 \\ & = (x+3)(x+3) \\ & = x^2 + 3x + 3x + 9 \\ & = x^2 + 6x + 9 \end{aligned}$$

$$\begin{aligned} \text{c}_3) & (x+5)^2 \\ & = (x+5)(x+5) \\ & = x^2 + 10x + 25 \end{aligned}$$

$$\begin{aligned} \text{c}_4) & (x-4)^2 \\ & = (x-4)(x-4) \\ & = x^2 - 4x - 4x + 16 \\ & = x^2 - 8x + 16 \end{aligned}$$

$$\begin{aligned} \text{d) } & (3x-4)^2 \\ & = (3x)^2 + 2(3x)(-4) + (-4)^2 \\ & = 9x^2 - 24x + 16 \end{aligned}$$

$$\begin{aligned} \text{e) } & 2(x+3)^2 \\ & = 2(x+3)(x+3) \\ & = 2(x^2 + 6x + 9) \\ & = 2x^2 + 12x + 18 \end{aligned}$$

$$\begin{aligned} \text{f) } & -2(x+6)(5x-2) \\ & = -2(5x^2 - 2x + 30x - 12) \\ & = -2(5x^2 + 28x - 12) \\ & = -10x^2 - 56x + 24 \end{aligned}$$

$$\begin{aligned} \text{g) } & 5(y-6)(y+2) - (2y+3)(4y-1) \\ & = 5(y^2 + 2y - 6y - 12) - (8y^2 - 2y + 12y - 3) \\ & = 5(y^2 - 4y - 12) - (8y^2 + 10y - 3) \\ & = 5y^2 - 20y - 60 - 8y^2 - 10y + 3 \\ & = -3y^2 - 30y - 57 \end{aligned}$$

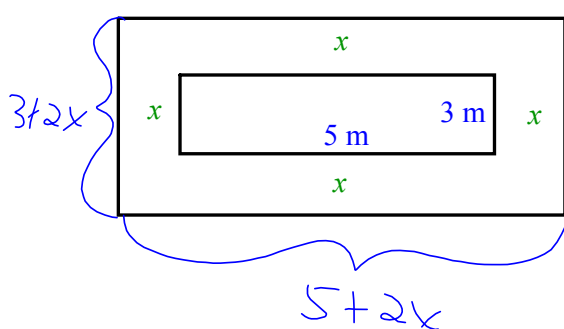
Challenge

A) $(3x^5y - 2x^3y^4z)^2$

B) $(2x^3y - 3x^5y^4z)^2$

$$= 9x^{10}y^2 - 12x^8y^5z + 4x^6y^8z^2$$

Ex. 2 Express the area of the large rectangle as a function of x .



$$\begin{aligned}
 A &= lw \\
 &= (5+2x)(3+2x) \\
 &= 15 + 10x + 6x + 4x^2 \\
 &= 4x^2 + 16x + 15
 \end{aligned}$$

Assigned Practice: pp.85-87 #2, 3, 5 - 7, 14

Be sure to keep up with your homework....

there are SWYKs next week,

and the next Unit Summative is only 2 weeks away!