

Semester 2 Test #1

If $f(x) = 9x^2 + 2x - 9$, and
 $g(x) = -11x^2 - 5x + 2$, what is:

$$(f + g)(x)$$

$$(f - g)(x)$$

If $(f + g)(x) = 7x^2 - 8x + 4$, which are possible values of $f(x)$ and $g(x)$? Circle three.

$$f(x) = 12x^2 - 7x + 2$$

$$g(x) = -5x^2 - x + 2$$

$$f(x) = -2x^2 - 4x$$

$$g(x) = -5x^2 - 4x + 4$$

$$f(x) = 6x^2 - 19x$$

$$g(x) = x^2 + 11x + 4$$

$$f(x) = 5x^2 + 7x + 2$$

$$g(x) = 2x^2 + x + 2$$

$$f(x) = 3x^2 - 2x - 12$$

$$g(x) = 4x^2 - 6x + 8$$

Expression 1: $8k^3 + 9k^2 - 4$

Expression 2: $-11k^2 + 2k - 5$

When Expression 1 is subtracted from Expression 2, the difference is:

$$-8k^3 + ak^2 + 2k + b$$

What is a?

What is b?

C and D are trinomial expressions:

$$C = 3y^2 + 4y + 4$$

$$D = -7y^2 + 3y - 6$$

Express $D - C$ as a trinomial.

Find the values for c and d that would make the following equation true.

$$(-9y^c)(dy^7) = 36y^9$$

$c =$

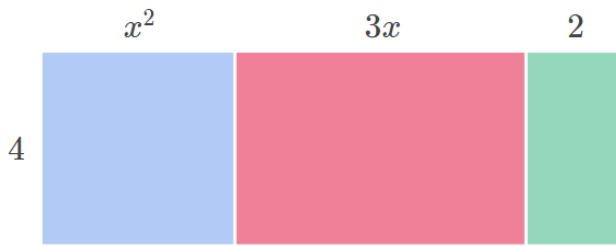
$d =$

Simplify.

Express your answer as a monomial.

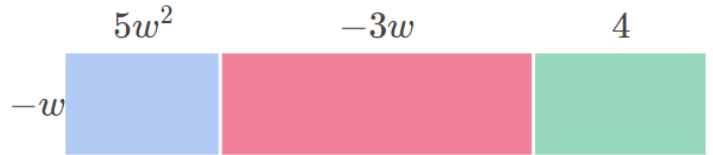
$$(-2xy^2)(3x^4)$$

Express the area of the rectangle below as a trinomial:



Area =

Express the area of the rectangle below as a trinomial:



Area=

Simplify.

Express your answer as a binomial.

$$-4w(w^2 - 9)$$

Simplify.

Express your answer as a binomial.

$$-5q^2(-q - 5)$$

$$9h^4(-9h - 9)$$

$$-6p(2p^3 - 4p^2)$$

Find the values for a , b , and c that would make the following equality true.

$$-3(2x^2 + ax + b) = cx^2 + 12x - 15$$