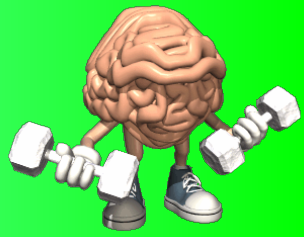


Warm Up



Expand and Simplify

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

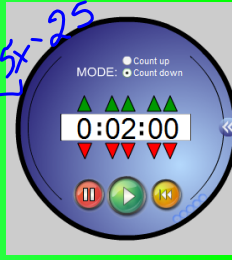
Handwritten work on a green background:

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

$$x^2 - 5x - 5x + 25 - (9x^2 + 15x + 15x + 25)$$

$$x^2 - 10x + 25 - 9x^2 - 30x - 25$$

$$x^2 - 10x + 25 - 9x^2 - 30x - 25$$

$$-8x^2 - 40x$$


Nov 24-8:13 AM

$$44a + 99a^2 \quad \frac{a^2}{a} = a$$

$$11a(4 + 9a)$$

$$-33b^2 + 99b + 77$$

$$-11(3b^2 - 9b - 7)$$

Mar 29-12:58 PM

$$-42x^3y^6 - 24x^4y^5 - 54x^3y^7$$

$$-6x^3y^5(7x^2y + 4x + 9y^2)$$

Mar 29-1:03 PM

$$(8h + 3)(7h^2 - 4h + 1)$$

	$7h^2$	$-4h$	$+1$
$8h$	$56h^3$	$-32h^2$	$+8h$
$+3$	$21h^2$	$-12h$	3

$$56h^3 - 11h^2 - 4h + 3$$

Mar 29-1:07 PM

2) b)

$$(3x-2)(3x-2)(3x-2)$$

$$(9x^2 - 12x + 4)(3x-2)$$

$$27x^3 - 18x^2 - 36x^2 + 24x + 12x - 8$$

$$27x^3 - 54x^2 + 36x - 8$$

Mar 29-1:12 PM

$$(3c+2)(2c-7) + 3(-2c+1)(7c-5)$$

$$(3c+2)(2c-7) + (-6c+3)(7c-5)$$

Mar 29-1:17 PM

$$(x-5)^2 - (3x+5) \quad 2$$

Oct 10-8:43 AM

$$44a + 99a^2$$

$$11a(4 + 9a)$$

$$-33b^2 + 99b + 77$$

$$-11(3b^2 - 9b - 7)$$

Mar 29-9:50 AM

$$(h+3)(7h^2-4h+1)$$

$$56h^3 - 32h^2 + 8h + 21h^2 - 12h + 3$$

$$56h^3 - 11h^2 - 4h + 3$$

Mar 29-9:58 AM

$$(3x-2)^3 \quad 6 \cdot 2 \cdot 3$$

$$(3x-2)(3x-2)(3x-2)$$

$$9x^2 - 6x - 6x + 4$$

$$(9x^2 - 12x + 4)(3x-2)$$

	$9x^2$	$-12x$	$+4$
$3x$	$27x^3$	$-36x^2$	$+12x$
-2	$+18x^2$	$+24x$	-8

$$27x^3 - 36x^2 - 18x^2 + 24x + 12x - 8$$

$$27x^3 - 54x^2 + 36x - 8$$

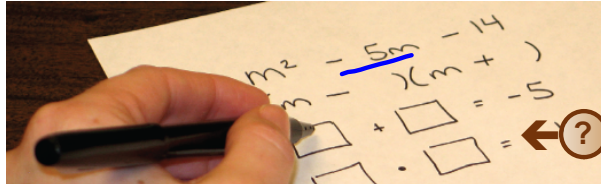
Mar 29-10:01 AM

Look at the numbers in the trinomial and the binomial.

$$v^2 + 12v + ?$$

2 and 10.

20 is the product of 2 and 10.



How could you complete this factorization?

3.5 Polynomials of the Form $x^2 + bx + c$

Key Concepts p. 5

Simple Trinomials

- has three terms with the form...

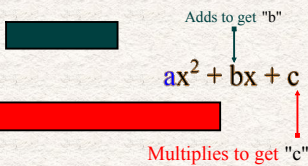
$$ax^2 + bx + c$$

- a simple trinomial has an "a" value of 1.
- we use a method of inspection to factor them.

CHECK IT OUT!!!

INSPECTION METHOD

- here's how it goes... "What two numbers?"



EXAMPLES...

SOLUTIONS

1) $x^2 + 13x - 48$ multiply -48 add $+13$

$(x - 3)(x + 16)$ $\frac{48}{-3} = -16$

2) $x^2 - 10x - 24$ $(12)(-2) = -24$ $-12 + 2 = -10$

$(x - 12)(x + 2)$ $\frac{24}{-3} = -8$

3) $2x^2 - 20x + 42$ $-7, -3$

$2(x^2 - 10x + 21)$

$2(x - 7)(x - 3)$

Sep 7-8:58 PM