

5.3/5.4 Adding Subtracting Radicals

Monday, December 7, 2015 1:44 PM

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5.3-5.4 Adding & Subtracting Polynomials

Notes

Name _____

Warmup:

Simplify: $x^2 - 2x + 5x - 3x^2 = -2x^2 + 3x$

What are like terms?

like terms are terms with the same variable(s) raised to the same exponents

How do you add/subtract like terms?

we add or subtract the coefficient, leave the variable the same.

ex1 - Add

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

$$\begin{aligned} & 2x^2 + 3x + 2 + x^2 + 2x + 3 \\ & = 3x^2 + 5x + 5 \end{aligned}$$

What steps are involved in adding polynomials?

- ① Identify your like terms
- ② add your like terms (or subtract)

ex2 - Simplify

a) $(3y^2 - 8y + 3) + (2y^2 + 8y - 9)$

$$= 5y^2 - 6$$

b) $(5x^3 + 7x - 9) + (-8x + 11 + 4x^3)$

$$= 9x^3 - x + 2$$

Subtracting Polynomials

ex3 - Simplify

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

$$\begin{aligned} & 4x^2 - 5x + 7 - 3x^2 - 2x + 5 \\ & = x^2 - 7x + 12 \end{aligned}$$

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What is the extra step needed when subtracting polynomials?

The subtraction sign must be distributed to every term in the second set of brackets.

ex4 - Simplify

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

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

$$= -y^2 + 4$$

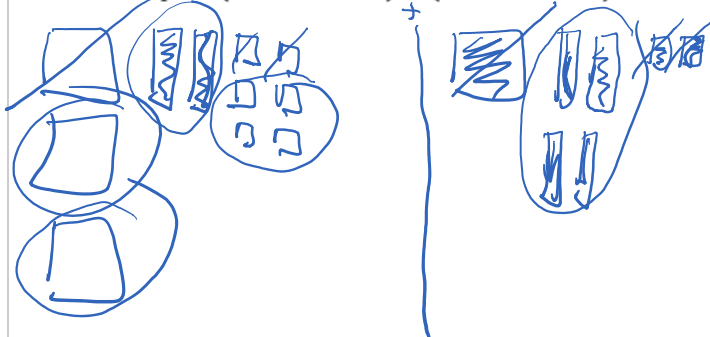
you try

b) $(-x^2y + 3xy) - (4xy^2 + xy - 2x^2y)$

$$\begin{aligned} & -x^2y + 3xy - 4xy^2 - xy + 2x^2y \\ & = x^2y + 2x - 4xy^2 \end{aligned}$$

Using Algebra tiles

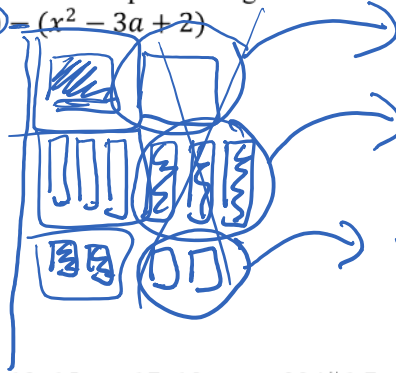
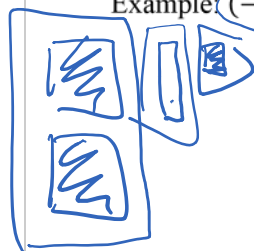
Example: $(3s^2 - 2s + 6) + (-s^2 - 4s - 2)$



$$= 2s^2 + 6s + 4$$

To subtract you need to subtract zero pairs of algebra tiles

Example: $(-2x^2 + a - 1) - (x^2 - 3a + 2)$



subtracting

$$= -3x^2 + 4a - 3$$

Assignment: pg 229#8, 10, 12, 15ace, 17, 18a + pg 234#6, 7ac, 8, 10, 12, 13, 15 + worksheet

* Quiz 5.1-5.4 Next Class

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Reflection: What is different about adding polynomials compared to subtracting them?