



Nov 24, 2011
Copy warm-ups into your notebooks



1) Classify the following polynomials as either monomials, binomial or trinomials

Monomial $9x^2y$

$v + 2t$ Binomial

Monomial 11

n Monomial

Triomial $k - 7 + b$

$3 + g^{10}$ Binomial

2) What is the degree of the following polynomial? degree 15

$$8x^5 - 6 + 10x - 9x^{15} + 10x^{14}$$

3) Rewrite the above in decending order

$$-9x^{15} + 10x^{14} + 8x^5 + 10x - 6$$

Warm Up

Nov 24, 2011

Write the polynomial for the following algebra tiles.

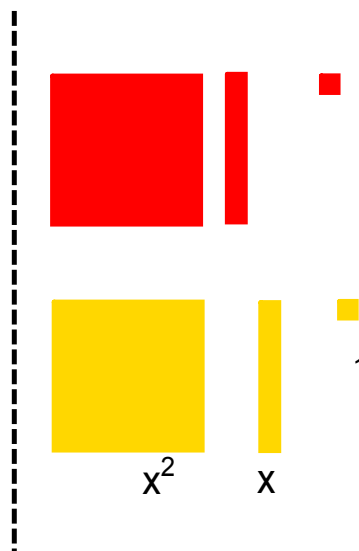
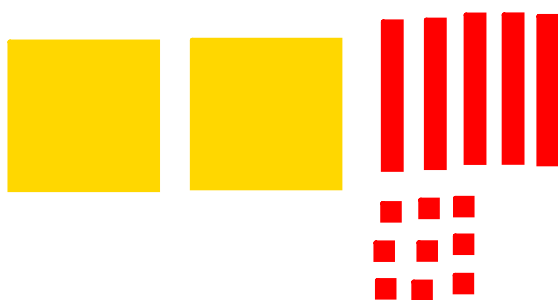


$$-3x^2 - x + 6$$



Model the following Polynomial

$$-5x + 2x^2 - 9$$





Section 5.2

Like Terms & Unlike Terms

What do the following pairs of integers all have in common?

-1, 1

-2, 2

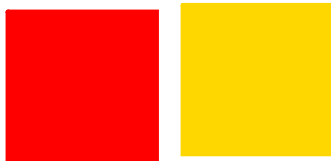
-100, 100

-15, 15

Hint:

What happens when you add them?

What do you think happens when a " x^2 " tile and a " $-x^2$ " tile combine?



They form a zero pair

TILES

Like Terms:

are algebra tiles with the same shape and size (Don't worry about colour → signs)

Here is a collection of tiles, lets group them together into "like terms".

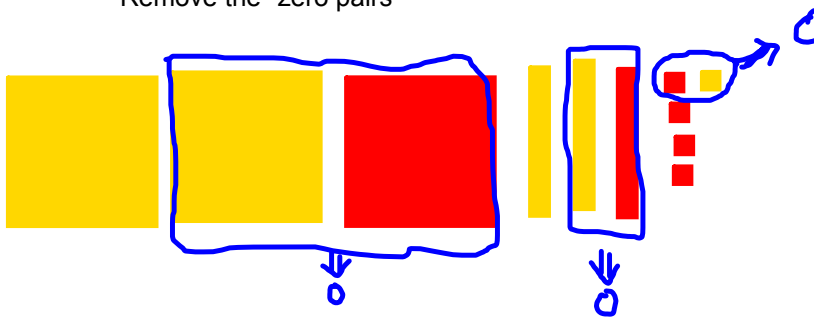


Always collect like terms

Once you collected like terms you have to simplify the tiles

HOW????

Remove the "zero pairs"



Copy what is left over



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



Polynomial Expressions



Like terms are $-3x^2$ and $4x^2$ (same letter with the same numerical exponent)

Unlike Terms are $-x^2$ and x (either different letters and/or different numerical exponent)
are y^2 and t^2

Simplified Form

*fewest algebra tiles possible

*contains only one term of each degree and no terms with a zero coefficient

Always simplify any polynomial by grouping like terms.

$$\begin{array}{r} 2x + 17 - x \\ 2x - x + 17 \\ x + 17 \end{array}$$

Simplify the following polynomial

Example: $-3x + 2x^2 - 7 + 10x + 5 - 4x^2$



Step 1) Group like terms

Always start with the largest exponent

$$-4x^2 + 2x^2 + 10x - 3x - 7 + 5$$

Step 2) Combine like terms

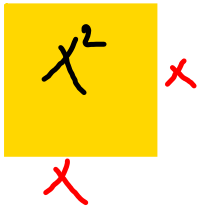
$$-2x^2 + 7x - 2$$

$$\text{Ex)} \quad 3 + 4h + h + 7$$

$$4h + h + 7 + 3$$

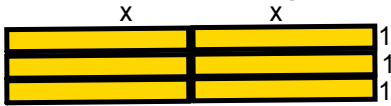
$$5h + 10$$

$$\begin{array}{r} \text{Ex} \\ 4x^2 + 4x^3 + 2x^2 \\ 4x^3 + 4x^2 + 2x^2 \\ 4x^3 + 6x^2 \end{array}$$



Perimeter - is the distance around an object
 - to calculate you add the length of each side

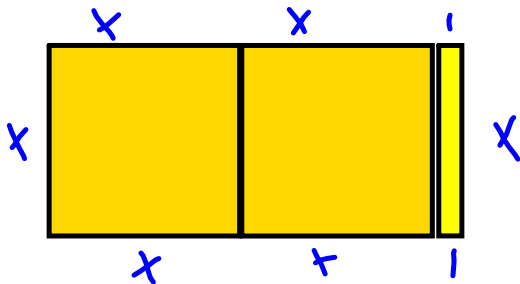
Write a polynomial to represent the perimeter of each rectangle.



$$P = x + x + 1 + 1 + 1 + x + x + 1 + 1 + 1$$

$$= 4x + 6$$

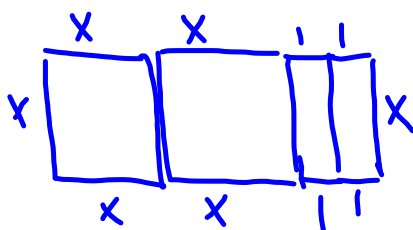
Example 2) Write a polynomial to represent the perimeter of each rectangle.



$$P = 2x + 1 + x + x + 2x + 1$$

$$= 6x + 2$$

Example 3) Use algebra tile to make the rectangle with perimeter $6x + 4$



$$P = 6x + 4$$

Homework

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6 - 7

8(write the simplified expression...You don't have to draw them out)

12 - 14

17, 19

Course Outline Grade 9 2010-2011 Second Semester.docx