

Quiz



Section 5.2

Like Terms & Unlike Terms

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

-1, 1

-2, 2

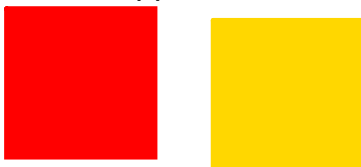
-100, 100

-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?



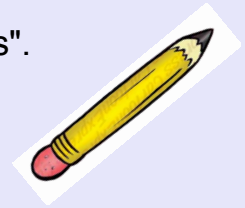
They form a zero pair

TILES

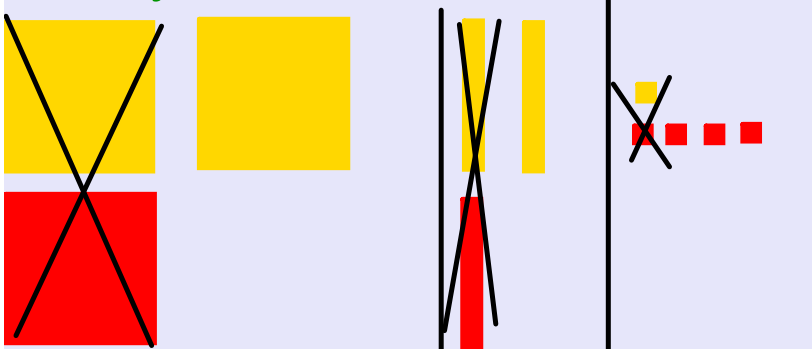
Like Terms:

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

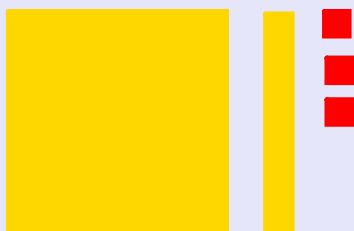


Once you collected like terms you have to simplify the tiles

HOW????

Remove the "zero pairs"

Copy what is left over



$$x^2 + x - 3$$



Polynomial Expressions



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

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

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.

Simplify the following polynomial

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

Step 1) Group like terms

Always start with the largest exponent

$$\underbrace{2x^2 - 4x^2}_{-2x^2} \quad \underbrace{-3x + 10x}_{7x} \quad \underbrace{-7 + 5}_{-2}$$

Ex) $3 + 4y + y + 7$

$$4y + y + 3 + 7$$

$$5y + 10$$

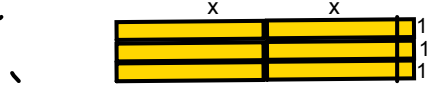
Ex) $4x^2 + 4x^3 + 2x^2$

$$4x^3 + 4x^2 + 2x^2$$

$$4x^3 + 6x^2$$

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.



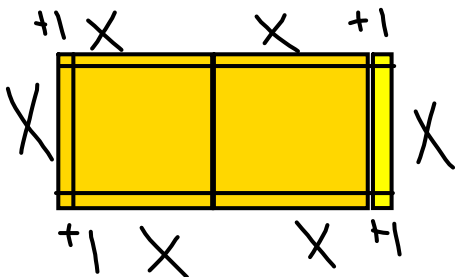
$$(2x + 1) + 3$$

$$+(2x + 1) + 3$$

$$2x + 1 + 3 + 2x + 1 + 3$$

$$4x + 8$$

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



$$6x + 4$$

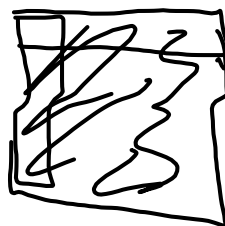
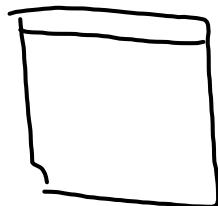
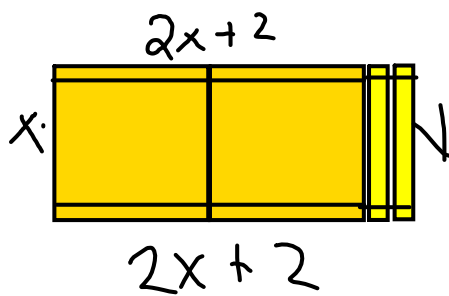
$$2x + 2$$

$$+ x$$

$$+ 2x + 2$$

$$+ x$$

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



$$x \cdot x = x^2$$

Homework



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#7

#8 (Draw out, cancel out zero pairs, redraw answers then write out expression)

#9

11 (ac)

#12

#13

#14

#18 (b)

19

Course Outline Grade 9 2010-2011 Second Semester.docx