Curriculum Outcome

- (PR 5)Demonstrate an understanding of polynomials (limited to of degree less than or equal to 2).
- (PR 6) Model, record and explain the operations of addition and subtraction of polynomial expressions, concretely, pictorially and symbolically (limited to polynomials of degree less than or equal to 2).
- (PR 7) Model, record and explain the operations of multiplication and division of polynomial expressions (limited to polynomials of degree less than or equal to 2) by monomials, concretely, pictorially and symbolically.

Student Friendly:
“Collecting like terms "

Warm Up Quiz

Separate Desk

- all you need is a pencil

Section 5.2

Like Terms & Unlike Terms

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

$-1, +1 = 0$

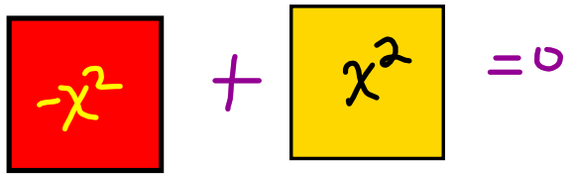
$-2, +2 = 0$

Hint:

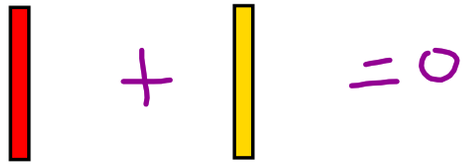
$-100, +100 = 0$

$-15, +15 = 0$

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



They form a zero pair



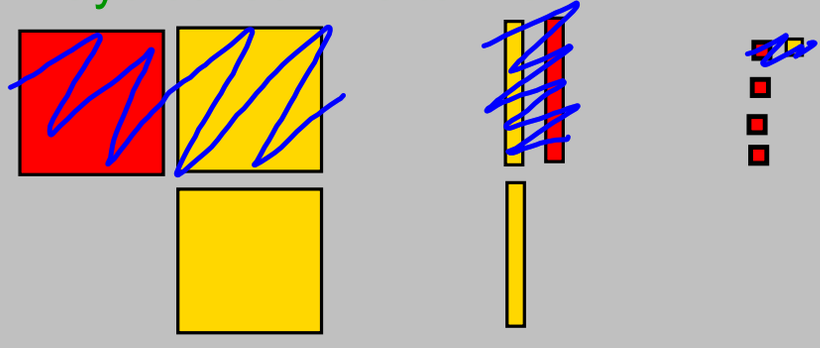
TILES

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"

$x^2 + x - 3$

Copy what is left over

See see it from the on line textbook

$1x^2 + 1x - 3$

Polynomial Expressions

Like terms are $3x^2$ ***and*** $4x^2$, $3xy$ $5xy$

(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

$3x$ $4x^2$

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.

Simplify the following polynomial

Example: [redacted]

Step 1) Group like terms

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

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

Ex) [redacted]

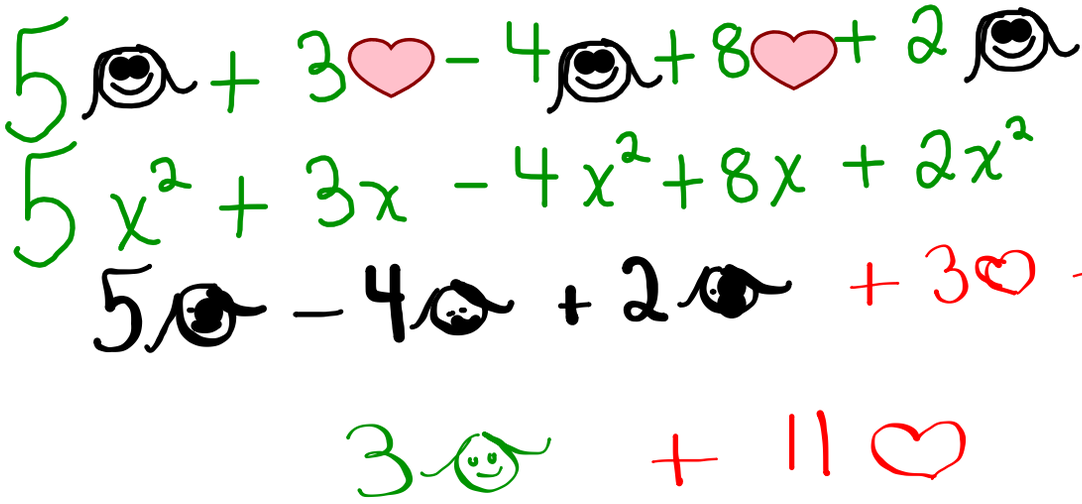
$4y + y + 3 + 7$

$5y + 10$

Ex) [redacted]

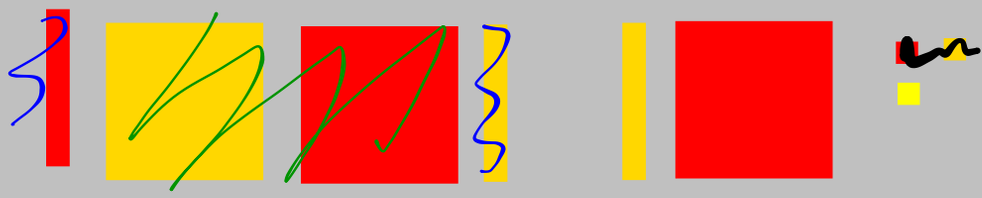
$4x^3 - 6x^3 + 4x^2 + 2x^2 + 7x^2$

$-2x^3 + 13x^2$


5 + 3 - 4 + 8 + 2
5x² + 3x - 4x² + 8x + 2x²
5 - 4 + 2 + 3 + 8
3 + 11

For Question 8

do the following



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6
#7
#8 Note(Draw out, cancel out zero pairs , redraw answers then write out expression)
#9