DECEMBER 8, 2015

UNIT 4: POLYNOMIALS

SECTION 5.1: MODELLING POLYNOMIALS

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WHAT'S THE POINT OF TODAY'S LESSON?

We will begin working on the Math 9 Specific Curriculum Outcome (SCO) "Patterns and Relations 5" OR PR5 which states:

PR5: "Demonstrate an understanding of polynomials (limited to polynomials of degree less than or equal to 2)."

What does THAT mean???

Polynomials, or "pre-algebra", prepare us for solving equations ("algebra").

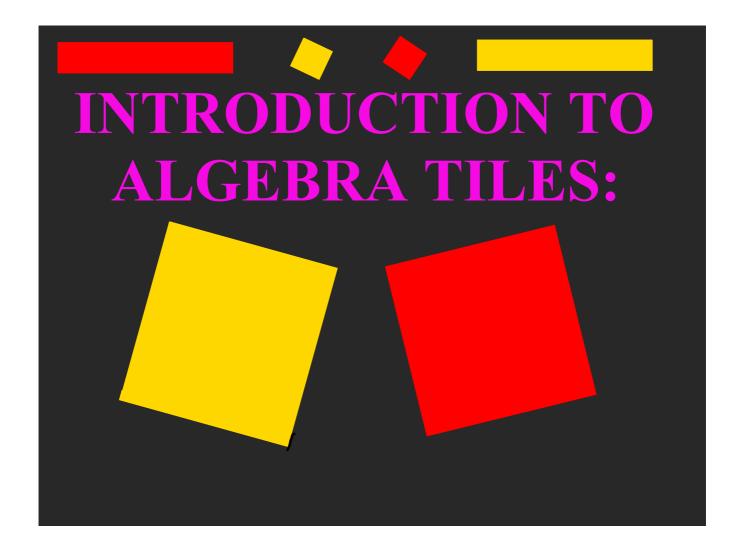
SCO PR5 means that we will learn about the different parts of polynomials which are a combination of numbers, variables (letters) and mathematical operations (+/-/x). We will use "algebra tiles" (little plastic rectangles and squares) to help us understand polynomials.

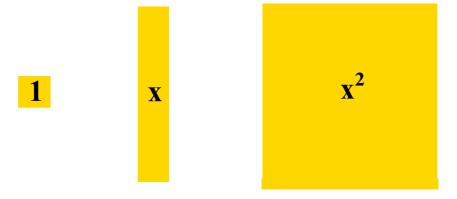


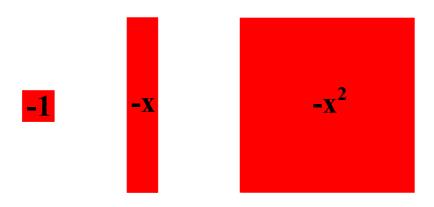
HOMEWORK QUESTIONS??? (page 214, #4 TO #7 and #9)

Math 9 Dec 8.notebook

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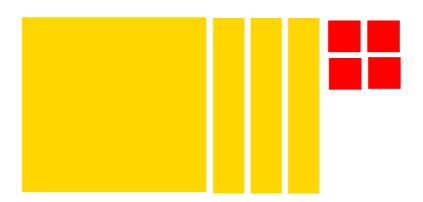






We often use the variable "x" in math, but algebra tiles can be used to represent ANY variable:

ex:
$$a^2 + 3a - 4$$



Which of these polynomials can be represented by the same algebra tiles?

a)
$$3x^2 - 5x + 6$$

b)
$$-5 + 6r + 3r^2$$

b)
$$-5 + 6r + 3r^2$$
 c) $-5m + 6 + 3m^2$

a) $3x^2 - 5x + 6$ Use three x^2 -tiles, five -x-tiles, and six 1-tiles.



b) $-5 + 6r + 3r^2$ Use five -1-tiles, six r-tiles, and three r^2 -tiles.



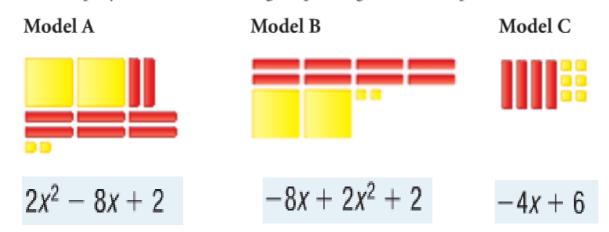
c) $-5m + 6 + 3m^2$ Use five -m-tiles, six 1-tiles, and three m^2 -tiles.



In parts a and c, the same algebra tiles are used.

Two polynomials are EQUIVALENT if they can be represented by identical algebra tiles; therefore, $3x^2 - 5x + 6$ and $-5m + 6 + 3m^2$ are equivalent polynomials.

a) Which polynomial does each group of algebra tiles represent?



b) Which of the polynomials in part a are equivalent? How do you know? Both models A and B contain the same tiles. So, $2x^2 - 8x + 2$ and $-8x + 2x^2 + 2$ are equivalent polynomials.

CONCEPT REINFORCEMENT:

MMS 9:

Page 214: #8, #11 and #12

Page 215: #13, #15 and #16

Page 216: #18

Also, be sure to study for tomorrow's polynomial vocabulary quiz!!! (7 definitions)