Topic: 5.1 Modelling Polynomials

Name: _____

Class: Math 9

Date: _____

Questions/Main Ideas:	Notes:

Learning Intention

Model, write, and classify polynomials.

First, a review.

Polynomials are used in business, science, medicine, and engineering.

A polynomial is one term or the sum or difference of terms whose variables have whole-number exponents.

Type of term	Example
Monomial (one term)	4 or 2x or -23y or $.6x^2$
Binomial (two terms)	$x + 4$ or $x^2 + 2x$ or $-3x - 4y$
Trinomial (three terms)	$x^2 + 3x - 5$ or $-4y + 3x + 17z$
Polynomial (one or more terms)	All of the above plus many more

Degree: The term with the **greatest exponent** determines the **degree** of the polynomial.

Examples:

$3x^2 - 2x + 5$ Degree 2
$-5x$ Degree 1
-14 Degree 0

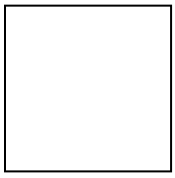
The following are NOT polynomials because the exponent is not a whole number. Example: $4x^{-2}$ or $\frac{1}{x^3}$ are not but $\frac{1}{3}x$ is!!

Polynomial	Constant	Coefficient(s)	Variable(s)	Degree
$x + 4$				
$-2x - 8$				
$-x^2 + 4x$				
$3x^2 + 4x - 3y$				
22				

Representing polynomials with algebra tiles.

(btw the variable x could also be any other letter)

(in the text, positives are yellow and negatives are red)


x^2

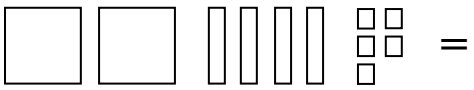
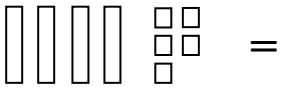
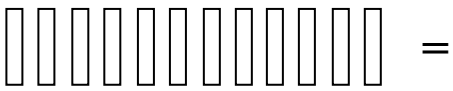
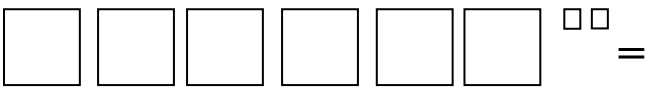

$-x^2$


x


$-x$


1


-1

Model the following polynomials with algebra tiles:	$3x^2 - 2x + 5$ $-5 + 6x + 3x^2$ $-5m + 6 + 3m^2$ $2x^2 - 8x + 2$
Which polynomial does each group of algebra tiles represent?	     
Next Step	p. 214 # 4, 5, 6, 9, 10, 12, 15, 20