

Algebra 2 Honors
Chapter 3 Vocabulary Review

Name Answer Key
 Date _____ Block _____

Define each of the following terms. Include examples or images to enhance your understanding.

Term	Definition
Monomial	<i>A number or a product of numbers and variables. For example: 3, x, or 5y</i>
Polynomial	<i>A monomial or a sum/difference of monomials. For example: 3x - 7; 4x² - 9x + 2</i>
Degree of a Monomial	<i>The sum of the exponents on the variables.</i>
Degree of a Polynomial	<i>Given by the term with the greatest degree.</i>
Leading Coefficient	<i>Coefficient of the first term (when polynomial is in standard form).</i>

Complete the table below.

Polynomial	Degree	Classification by Degree
8	0	<i>constant</i>
5x - 3	1	<i>linear</i>
4x ² + 5x - 2	2	<i>quadratic</i>
5x ³ - 8x ² + 10x - 1	3	<i>cubic</i>
x ⁴ - 2x ³ + 9x + 2	4	<i>quartic</i>
3x ⁵ - 7x ⁴ + 2x ³ - 8x ² - 9	5	<i>quintic</i>

Classifying Polynomials by the Number of Terms:

Ex. 4x² + 3x - 7

The polynomial above has 3 terms. Therefore it is a trinomial.

Polynomial	# of Terms	Classification by the # of Terms
8	1	<i>monomial</i>
5x - 3	2	<i>binomial</i>
4x ² + 5x - 2	3	<i>trinomial</i>
5x ³ - 8x ² + 10x - 1	4	<i>polynomial with four terms</i>

Now put it all together. Complete the following table.

Polynomial	Leading Coefficient	Degree	Classification by Degree	Classification by the # of Terms
$2x^3 - 5x^2 - 10x + 9$	<i>2</i>	<i>3</i>	<i>Cubic</i>	<i>Polynomial with four terms</i>
$3x + 1$	<i>3</i>	<i>1</i>	<i>Linear</i>	<i>Binomial</i>
$-6x$	<i>-6</i>	<i>1</i>	<i>Linear</i>	<i>Monomial</i>
$-x^2 + 3x + 9$	<i>-1</i>	<i>2</i>	<i>Quadratic</i>	<i>Trinomial</i>
$5x^4 - 7x^3 + 4x - 1$	<i>5</i>	<i>4</i>	<i>Quartic</i>	<i>Polynomial with four terms</i>
9	<i>9</i>	<i>0</i>	<i>Constant</i>	<i>Monomial</i>
$2x^3 - 8x$	<i>2</i>	<i>3</i>	<i>Cubic</i>	<i>Binomial</i>
$x^2 - 4x + 12$	<i>1</i>	<i>2</i>	<i>Quadratic</i>	<i>Trinomial</i>