Name:_____ Period:____

7.1 HOMEWORK : Polynomial vocab

1. Complete the table.

	$-9x + 3x^2 + 4x^3 - 7$	$-3 - 2x^2 + 8x + 5x^4$
Coefficients of terms that have variables?	$-9, 3, 4$	$-2, 8, 5$
List the terms.	$-9x, 3x^2, 4x^3, -7$	$-3, -2x^2, 8x, 5x^4$
Degree of Polynomial?	3	4
Write polynomial in standard form.	$4x^3 + 3x^2 - 9x - 7$	$5x^4 - 2x^2 + 8x - 3$
Leading coefficient?	4	5
Constant term?	-7	-3

2. Write each polynomial in standard form, and identify it as a monomial, binomial, trinomial, or polynomial.

a. $9 - 8x^2 + 2x^4$

$2x^4 - 8x^2 + 9$

Trinomial

b. $y^2 + 1 + 4y^3 - 5y$

$4y^3 + y^2 - 5y + 1$

Polynomial

c. $2y^2 + 3 + 5y^3 - 7y$

$5y^3 + 2y^2 - 7y + 3$

polynomial

d. $-6x$

$-6x$

Monomial

e. $4 + 8x^2 - x$

$8x^2 - x + 4$

Trinomial

f. $-12 - 14y$

$-14y - 12$

Binomial

★ g. $6y^2 - 4x^2 + 4xy$

In standard form

Trinomial

h. $3 + 8p - 11r + 6p^2$

$6p^2 + 3p - 11r + 3$

polynomial

i. $2 + 5jk - 6j^2 + 7k^2$

$7k^2 - 6j^2 + 5jk + 2$

polynomial

3. Identify the degree and coefficient of each term in the polynomial $4x^5 + 12x^3 + x^2 - x + 5$.

Term	Degree	Coefficient
$4x^5$	5	4
$12x^3$	3	12
x^2	2	1
$-x$	1	-1

4. Identify the degree and constant term of each polynomial.

Polynomial	Degree of Polynomial	Constant Term
$2x^2 + 3x + 7$	2	7
$-5y^3 + 4y^2 - 8y - 3$	3	-3
$36 + 12x + x^2$	2	36

For Items 5-9, use the polynomial $4x^3 + 3x^2 - 9x + 7$.

5. Name the coefficients of the terms in the polynomial that have variables.

4, 3, -9

6. List the terms, and give the degree of each term. Term : Degree

$4x^3 : 3$ $3x^2 : 2$ $-9x : 1$ $7 : 0$

7. What is the degree of the polynomial?

3

8. Identify the leading coefficient of the polynomial.

4

9. Identify the constant term of the polynomial.

7

10. Write each polynomial in standard form.

a) $9 + 8x^2 + 2x^3$ $2x^3 + 8x^2 + 9$

b) $y^2 + 1 + 4y^3 - 2x$ $4y^3 + y^2 - 2x + 1$