Unit 7 Day 1 Homework **Name:**

Classifying, Adding, and Subtracting Polynomials

Part I: Re-write each polynomial into standard form and identify the leading coefficient. Then classify the polynomial by degree and number of terms. Use your notes to help you 😊

1. $x^3 - 2x + 1$

L.C. = 1

degree = cubic

terms = trinomial

2. $5x$

L.C. = 5

degree = Linear

terms = monomial

2. $4 - 8x^2$

$-8x^2 + 4$

L.C. = −8

degree = Quadratic

terms = Binomial

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

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

LC = 10

degree = Quartic

terms = polynomial

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1. $x^3 - 2x + 1$

2. $5x$

2. $4 - 8x^2$

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

PART II: ADD/SUBTRACT the following polynomials. Leave answer in standard form.

5. $(-3x^2+5x+6)+(x^2+2x-3)$

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

6. $(2y^2+15y-4)+(5y^3+7y^2-10y+4)$

$5y^3+9y^2+5y$

7. $(4x^2-5x+8)-(-11x+2x^2+10)$

$4x^2-5x+8+11x-2x^2-10$

$2x^2+6x-2$

8. $(3x^5+8x^3-10x^2)-(14x^2+4x^3-12x^5-x)$

$3x^5+8x^3-10x^2-14x^2-4x^3+12x^5+x$

$15x^5+4x^3-24x^2+x$

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6. $(2y^2+15y-4)+(5y^3+7y^2-10y+4)$

7. $(4x^2-5x+8)-(-11x+2x^2+10)$

8. $(3x^5+8x^3-10x^2)-(14x^2+4x^3-12x^5-x)$