Name_____ Date_____ Per_____

Polynomial Assignment

Part 1: Classify each as **M** (monomial), **B** (binomial), **T** (trinomial), **P** (polynomial), or **C** (constant).

1)._____ $2x+1$ 2)._____ $17x^2+11$ 3)._____ $8x^3+2x^2+3x-7$

4)._____ -130 5)._____ $4a^2+7a-10$ 6)._____ $10x^3-2x+1$

Part 2: Standard Form of Polynomials

7.) Circle the problems that are in **standard form**. If it is not in standard form, re-write in standard form.

a. x^3-11x^2 b. $2+3x+4x^2+3x^3$ c. $-3x+17x^4+2x^2$ d. $-1+3x+2x^2$

_____ _____ _____ _____

8. Given: $2x^3-5x^2-2x+12$

How many terms are there? ____

What is the coefficient of the 3rd term? ____

What is the constant? _____

Part 3: Add these polynomials. Only combine things that are alike (have the same exponent).

9.) $14x+5$ $+10x+5$

10.) $10x+12$ $+6x+20$

11.) $17x^2+11$ $+8x^2+11$

12.) $(19x^2+12x+12)+(7x^2+10x+13)$

13.) $(4x^2-6x+7)+(-19x^2-15x-18)$

14.) $(20x^2+15x+13)+(-19x^2+17x+5)$

15.) $(9x^6-4x^5)+(10x^5-15x^4+14)$

16.) $(9x^2+12)+(7x^2+10x+13)$

17.) $(5x^6+9x^3-6x)+(-9x^6-20x^2-6x)$

Part 4: Subtract these polynomials.

18.) $(6x+14)$ $-(9x+5)$

19.) $(14x^2+13x+12)$ $-(7x^2+20x+4)$

20.) $(19x^2+9x+16)$ $-(5x^2+12x+7)$

21.) $(17x^2+7x-14)-(-6x^2-5x-18)$

22.) $(-18x^2+4x-16)-(15x^2+4x-13)$