ALGEBRA 1 **CLASS PERIOD ___** **NAME: _____**

Homework #2: Classify & Combine Polynomials

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

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

7) x^3-11x^2 8) $2+3x+4x^2+3x^3$ 9) $-3x+17x^4+2x^2$ 10) $-1+3x+2x^2$

_____ _____ _____ _____

11) Given: $2x^3-5x^2-2x+12$

How many terms are there? ____ What is the coefficient of the 3rd term? ____

What is the constant? _____ What is the leading coefficient? _____

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

12) $14x+5$
$+10x+5$

13) $10x+12$
$+6x+20$

14) $17x^2+11$
$+8x^2+11$

15) $(19x^2+12x+12)+(7x^2+10x+13)$

16) $(4x^2-6x+7)+(-19x^2-15x-18)$

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

18) $(9x^6-4x^5)+(10x^5-15x^4+14)$

19) $(9x^2+12)+(7x^2+10x+13)$

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