Name _____ 02/05/09

Graded Homework assignment Algebra 2

1. **Identify the degree of the monomial**

x^3y^4z

2. Rewrite each polynomial in standard form. Then identify the leading coefficient, degree, and number of terms. Name the polynomial.

$6x \ -4x^4+5^7$

a) write the terms in descending order

b) Leading coefficient

c) Degree

d) Terms

e) Name

3. Add or subtract. Write your answer in standard form.

$\left(x^2-3x+4\right)+\left(x^3+3x-4\right)$

4. Add or subtract. Write your answer in standard form.

$\left(5y^3-2y^2-1\right)-\left(y^2-2y-3\right)$

5. **Find each product**.

$3x^2\left(x^3+4\right)$

6. $xy\left(5x^2+8x-7\right)$

7. **Find each product.**

$$(x-y)(x^2+2xy-y^2)$$

8. **Find each product.**

$$(x^3+3x^2+1)(3x^2+6x-2)$$

9. **Expand**

$$(x+y)^4$$

10. **Expand**

$$(2x-y)^5$$