Algebra 2 - 6.1 Worksheet

Identify the degree of each monomial.

1) $6x^2$ 2) $3p^3m^4$ 3) $2x^8y^3$

_____   _____   _____

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

4) $6 + 7x - 4x^3 + x^2$ 5) $x^2 - 3 + 2x^5 + 7x^4 - 12x$

Standard Form: _____   Standard Form: _____

Leading Coefficient: _____   Leading Coefficient: _____

Degree: _____   Degree: _____

Number of Terms: _____   Number of Terms: _____

Name: _____   Name: _____

Add or subtract. Write your answer in standard form.

6) $(2x^2 - 2x + 6) + (11x^3 - x^2 - 2 + 5x)$ 7) $(x^2 - 8) - (3x^3 - 6x - 4 + 9x^2)$

Answer: _____   Answer: _____

8) $(5x^4 + x^2) + (7 + 9x^2 - 2x^4 + x^3)$ 9) $(12x^2 + x) - (6 - 9x^2 + x^7 - 8x)$

Answer: _____   Answer: _____

Graph each polynomial function on a calculator. Describe the graph, and identify the number of real zeros.

10) $f(x) = x^3 + 2x^2 - 3$

11) $f(x) = x^4 - 5x^2 + 1$

Description: _____

Description: _____

_____

_____

Number of Real Zeros: _____

Number of Real Zeros: _____

12) Kyle Schwarber gets a hit every time he is up to bat in the world series. The height of his hits, h, can be approximated by $h(t) = -16t^2 + 100t + 5$, where t is measure in seconds.

   a) Evaluate $h(t)$ for $t = 3$ and $t = 5$

                                           _____

   b) Describe what the values of the function from part a represent.

_____

_____