***Math 97 Brush-Up Lesson*: POLYNOMIALS**

If you placed into MATH 97 or a higher-level course, this might be useful for you

1. Combine like terms, write in standard form, state the degree, and evaluate for $x = -2$.

a. $6x^2 + 2x^4 - 2x^2 - x^4 - 4x^2 + x$

b. $12x^6 - x^3 + 8x^6 + 4x^3 - x^7 - 3x^3$

2. Add, collect like-terms, and write in standard form.

a. $(x^2 - 5x + 4) + (8x - 9)$

b. $(4x^5 - 6x^3 - 9x + 1) + (3x^4 + 6x^3 + 9x^2 + x)$

3. Subtract, collect like-terms, and write in standard form.

a. $(x^2 - 3x - 2) - (2x^2 - 6x - 2)$

b. $(2x^3 - 5x^2 + x + 7) - (5x^3 - 4x^2 + 2x + 1)$

4. Multiply, collect any like terms, and write in standard form. Use FOIL for the product of two Binomials.

a. $-2x^3(x^2 - 1)$

b. $(x + 7)(x + 3)$

c. $(x - 5)(x + 3)$

d. $(2x - 3)(x - 2)$

e. $(3x - 4)(x^2 - 5x + 1)$

5. Multiply the polynomials and write in standard form.

a. $(x - 5)(x^2 - 6)$

b. $(2x - 1)^2$