*Pre-calculus 11 Review Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

**REVIEW 3: MULTIPLYING POLYNOMIALS**

**Polynomials:**

A **polynomial** is an expression with variables such that their exponents are always non-negative integers.

Examples:

Non-examples:

**Multiplying Polynomials**

\* Monomial x Binomial (FISH) \* Binomial x Binomial (FOIL)

Ex.  Ex. 

\* Binomial x Trinomial

Ex. 

Note: You must ensure the EVERY term multiplies EVERY OTHER term exactly 1 time.

**REVIEW 3: FACTORING PART 1**

What is factoring?

Ex 1. List all of the factors of 15

Ex 2. List all of the factors of 6x

There are several different types of factoring:

1. **Common Factoring (GCF)**

If there is a factor common to ALL of the terms of a polynomial, we may rewrite the expression as a product by dividing each term by the GCF.

**Ex**. Factor 

1. **Difference of squares** 

If both a and b are *perfect squares* (eg. 1, 4, 9, 16, 25, …) then this form will always factor as: 

**Ex.** Factor 

1. **Trinomials of the form** 

Look for 2 numbers that add to b and multiply to c. To find these numbers, list pairs that multiply to c.

**Ex**. Factor 

**Practice: Multiplying Polynomials & Factoring Part 1 Review Sheet**