

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Factoring

**Introduction to Factoring**

Factoring polynomials is the reverse process of multiplication of polynomials. Factoring a polynomial means taking one polynomial and expressing it as a product of two or more polynomials. Not all polynomials can be factored. If they cannot be factored then we call that polynomial a prime polynomial similar to a prime number. A prime polynomial is a polynomial whose factors are just 1 and the polynomial itself.

Examples of polynomials in factored form:

1. 
2. 
3. 
4. 

How can you check your factoring?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

FACTORING WHEN TERMS HAVE A COMMON FACTOR

The very first step when factoring polynomials is to look for factors common to every term and then use the reverse of the distributive property: ac + ad = a(c + d). When factoring out common terms, make sure you are factoring out the greatest common factor (GCF). For example, although 3 is a common factor between 6 and 12, the greatest common factor between 6 and 12 is 6.

Examples: Factor

1)  2) 

3)  4) 

5)  6) 

7)  8) 

9) 15xyz + 30 xyz – 60 xy  10) 

11)  12) ****

13)  14) 

15)  16) 

17)  18) 