Date:_____

GCF Factoring

Introduction to Factoring out GCF

 \star "Factor" simply means to **UN**DISTRIBUTE. \star

Distributed Version	Factored Version	
	5x(x + 3)	
	2x ² (x - 4)	
2x ² – 4x		
15x ² – 5x + 30		

More formal Definition:

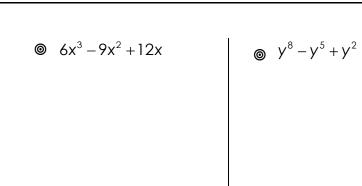
• Factoring: Writing the polynomial as a product.

Steps to Factoring Out a GCF:

- ★ Find the GCF of all its terms (number and/or variables). For variables ALL the terms must have the variable. Choose the <u>smallest</u> exponent!
- ★ The GCF goes to the LEFT!
- ★ Write the polynomial as a product by <u>dividing</u> the original terms of the polynomial by the GCF.
- ★ The remaining factors in each term will form a polynomial. You'll always have the same number of terms you started with.

Factor using a GCF:

◎ 4x+6y



PRACTICE: Factor each polynomial using a GCF.		
1. 10x + 45	2.	28x-63
3. 18a+42	4.	8x + 24
5. $18x^2 - 15x + 39$	6.	27a ² + 81
7. $72a^8 + 33a^5 - 42a^3$	8.	$15x^7 + 30x^6 - 45x^3$

9. $4x^3 + 16x^2 - 44$ 10. $14x^2 + 7x - 42$