

Finding Greatest Common Factor is
Name of the Game is

"The Smallest Piece of Each COLUMN"

Find all the multiples for the numbers and the biggest exponent of the variable in each term. Note: Same bases with different exponents go in the same column. Take the smallest term in each column. Do not use columns with a blank space.

For example suppose we have the following:

1. term one: $5x^2$ term two: $+10$

	2	5	x	
$5x^2$		5	x^2	
10	2	5		
		5		

$5(x^2 + 2)$ == 5 GCF

2. Term 1: $9x^2y^5$ Term 2: $-6y^6z$ Term 3: $+3xyz^7$

	2	3	x	y	z	
$9x^2y^5$		$3*3*3$	x^2	y^5		
$6y^6z$	2	3		y^6	z	
$3xyz^7$	3	3	x	y	x^7	
		3		y		

$3y(3x^2y^4 - 2y^5z + xz^7)$ == 3y GCF

3. Term 1: $12x^2y^4$ Term 2: $-48x^2yz$ Term 3: $+9xyz^7$

	2	3	x	y	z	
$12x^2y^4$			x^2	y^4		
$48x^2yz$	2*2	3	x^2	y	z	
$9xyz^7$	2*2*2*2	3*3	x	y	z^7	
		3	x	y		

$3xy(4xy^3 - 16xz + 3z^7)$ == 3xyGCF