Name: _____ Date:_____

Unit 7- Factoring **Lesson 1**

Do Now:

a) Simplify: $(4x^3y - 2x^4 + 2x) \div 2x$

b) Find the **greatest** common factor:4 and 10

c) Find the **greatest** common factor: x and x^2

Aim: How do we factor using the G.C.F method?

Greatest Common Factor:_____

_____

EXAMPLES:

(a) x^3 and x^5

(b) $8x^4y^9$ and $20x^4y^6$

#	G.C.F	Question	Check
1.		$2a + 2b$	
2.		$ab + bc$	

Steps for Factoring G.C.F:

1.) _____

a. Look for the _____ numerical coefficient

b. Look for common variable with the _____ exponent.

2.) Put the **G.C.F** on the outside of parenthesis

3.) Divide each term by the **G.C.F**

4.) Put the quotient on the inside of parenthesis.

5.) Check your answer by <u>distributing</u>.

3. $7x-7y$	4. $4x-16$
5. $2m^5+4m$	6. x^2-x^5
7. $4x^{10}-12x^8$	8. $8y^9-2y^4$

9. $5y^2 + 2y$	10. $3x^2 - 9x$
11. $3x - 6x^2$	**12.** $15y^2 - 5y$

13. Which are factors of $15y^2 - 5y$? 1) $5y - 1$ and $3y + 5$ 2) $5y$ and $3y - 1$ 3) $5y$ and $3y$ 4) $5y - y$ and $3y + 5$	14. One of factors of $3x^3 - 6x^2$ is 1) $3x^2$ 2) $3x^3$ 3) $-6x^2$ 4) $(x - 6x^2)$