

Unit 7 Day 4 Notes on Intro to Factoring GCF

Use the internet/friend/teacher to answer the following:

What is factoring?

"un-multiplying"

$$\text{EX: } 4x + 12 = 4(x + 3) \quad \text{OR} \quad x^2 + x = x(x + 1)$$

GCF?

Greatest Common Factor -

the biggest factor that is in all the terms

Examples: Fill these in based on what you learned from your research.

1) Factor: $x^2 + 3x$

a. What is the GCF?

x

b. Factored form:

$$x^2 + 3x = x(x + 3)$$

2) Factor: $8y^2 - 24y$

a. What is the GCF?

8y

b. Factored form:

$$8y^2 - 24y = 8y(y - 3)$$

3) Factor: $-2x^2y^5 + 12x^3y^3 - 8x^4y^6$

a. What is the GCF?

 $-2x^2y^3$

b. Factored form:

$$-2x^2y^5 + 12x^3y^3 - 8x^4y^6 = -2x^2y^3(y^2 - 6x + 4x^2y^3)$$