KEY

Unit 7 Day 5 Notes on More GCF and Intro to factoring

GCF PRACTICE "Greatest Common Factors"

if the lead coefficient is negative, ↓ divide out a negative at the beginning

Directions: Factor out the greatest common factor.

1. $6x^2 - 15y$

3

$\boxed{3(2x^2-5y)}$

2. $7w^5 - 35w^2$

$\boxed{7w^2(w^3-5)}$

3. $-12a^5 + 8a$

$\boxed{-4a(3a^4-2)}$

4. $8a^2b - 6ab^2$

$\boxed{2ab(4a-3b)}$

5. $-2g^4 + 14g^2 + 6g$

$-2g(g^3-7g-3)$

6. $45x^2y^3 - 15xy + 30x^3y^2$

$15xy(3xy^2 - 1 + 2x^2y)$

Let's try it together ... Fill in the blanks: $ax^2+bx+c \rightarrow$ Quadratic

1. $(x+\underline{4})(x+\underline{3}) = x^2 + \underbrace{3x+4x}_{7x} + 12$

add multiply

2. $(x+5)(x+\underline{4}) = x^2 + 9x + 20$

add multiply

3. $(x+8)(x+3) = x^2 + 11x + 24$

add multiply

4. $(x+7)(x-2) = x^2 + 5x - 14$

add multiply (NEGATIVE)

5. $(x+2)(x-6) = x^2 - 4x - 12$

add multiply (NEG)

6. $(x+2)(x-10) = x^2 - 8x - 20$

add multiply (NEG)

7. $(x+8)(x+2) = x^2 + 10x + 16$

add multiply

8. $(x-2)(x-11) = x^2 - 13x + 22$

add multiply

Factor the following

9. $x^2 + 7x + 10$

add multiply

$(x+5)(x+2)$

10. $x^2 + 2x - 8$

add multiply

$(x+4)(x-2)$

11. $x^2 + 2x + 1$

add multiply

$(x+1)(x+1)$

$(x+1)^2$