

Factoring Trinomials

ALWAYS
FIND THE GREATEST
COMMON FACTOR
FIRST

Factor

$$1. 54x^3 + 36x^2 + 72x \quad 2. 4x^5 - 12x^4 + 36x^3$$

$$9x(6x^2 + 4x + 8) \quad 4x^3(x^2 - 3x + 9)$$

$$18x(3x^2 + 2x + 4)$$

Factor a trinomial. $x = C$ but $+ = B$

$$3. \overset{A}{x^2} + \overset{B}{9x} + \overset{C}{14} \quad 4. x^2 - 4x + 3 \quad x^3 + -4$$

$$(x+7)(x+2) \quad (x-1)(x-3)$$

$$14 (9)$$

$$5. x^2 + x - 20 \quad 6. x^2 - 7x - 18$$

$$(x-4)(x+5) \quad (x-9)(x+2)$$

$$\frac{-20}{5 \cdot -4} \quad 1 \quad \frac{-18}{-9 \cdot 2} \quad -1$$

Factor

$$7. 4x^4 - 8x^3 - 96x^2 \quad 8. 3x^3y + 27x^2y + 54xy$$

$$4x^2(x^2 - 2x - 24) \quad 3xy(x^2 + 9x + 18)$$

$$\boxed{4x^2(x-6)(x+4)} \quad \boxed{3xy(x+3)(x+6)}$$

$$\frac{-24}{-6 \cdot 4} \quad -2$$

Conclusion

1. What do we always do first?

GCF

2. How do we factor a trinomial?

what mult to be C must add to be B

3. Questions?????

Assignment**Factor wkst #2**