

# CLASS AGENDA

- ⦿ Factoring - No Coefficient
- ⦿ Practice
- ⦿ Factoring - GCF
- ⦿ Practice
- ⦿ Solving
- ⦿ Closure

# FACTORING

- ⊙  $ax^2 + bx + c$ 
  - a: leading coefficient
  - b: sum of the factors
  - c: product of the factors
  
- ⊙ Example:  $x^2 + 2x + 1$ 
  - What factors of 1 add up to 2?

# FACTORING

⊙  $ax^2 + bx + c$

⊙ When “a” is positive

- If “c” is positive, then the factors have to be the same sign (positive or negative)
  - If c is positive, look to the sign of “b”
- If “c” is negative, then the factors have to be opposite signs (one positive and one negative)

# EXAMPLES

1.  $x^2 + 5x + 4$

2.  $x^2 + 4x - 5$

3.  $x^2 - 3x + 2$

# PRACTICE

- Complete problems 1-15 on the worksheet

# GREATEST COMMON FACTOR

- When “a” is a number other than 1:
  - Look to factor it out
  - If so, then factor the rest as normal
  - If not, try to factor completely
- Example:  $2x^2 - 6x + 4$

# PRACTICE

- Complete problems 16-30 on the worksheet

# SOLVING

- To solve a quadratic equation means to find the zeroes.
- Steps to solving:
  1. Set the equation equal to zero
  2. Factor completely
  3. Set each factor equal to zero
  4. Solve for each factor algebraically

# PRACTICE

- Solve each of the equations on the worksheet

# CLOSURE