

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

# NOTES: FACTOR A BASIC TRINOMIAL

Day 2

## Trinomial when $a = 1$

$$ax^2 + bx + c$$

To factor a basic trinomial, find \_\_\_\_\_ of \_\_\_\_\_ of \_\_\_\_\_ that have a \_\_\_\_\_.

Examples: Factor the following trinomials.

1.  $x^2 + 8x + 7$

2.  $x^2 + 16x + 64$

3.  $x^2 + 11x + 18$

4.  $x^2 + 10x + 24$

5.  $x^2 - 11x + 24$

6.  $x^2 - 16x + 48$

7.  $x^2 - 17x + 72$

8.  $x^2 - 13x + 40$

9.  $x^2 - x - 90$

10.  $x^2 - x - 56$

11.  $x^2 + 7x - 18$

12.  $x^2 + 10x - 39$

13.  $2x^2 + 2x - 4$

14.  $3x^2 - 15x + 12$

15.  $2x^2 + 10x + 8$

Always look for a GCF first!

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# A. FACTOR A BASIC TRINOMIAL Day 2

Factor the following trinomials.

**1.**  $x^2 + 18x + 56$

**2.**  $x^2 + 6x + 8$

**3.**  $x^2 + 9x + 18$

**4.**  $x^2 - 10x + 9$

**5.**  $x^2 - 4x + 24$

**6.**  $x^2 - 13x + 40$

**7.**  $x^2 + 2x - 24$

**8.**  $x^2 + 4x - 12$

**9.**  $x^2 - 4x - 45$

**10.**  $x^2 - x - 42$

**11.**  $x^2 + 3x - 54$

**12.**  $x^2 - 15x - 54$

Always  
look for a  
GCF first!

**13.**  $5x^2 + 30x - 35$

**14.**  $2x^2 + 22x + 60$

**15.**  $4x^3 - 4x^2 - 8x$

**16.**  $6x^2 - 66x + 60$

**17.**  $3x^4 - 3x^3 - 36x^2$

**18.**  $3x^2 + 21x + 30$