Algebra 1
Day 5 – Factor Trinomials (+, +)
Practice Assignment

Unit7: Quadratic Expression

Name: Key **Practice**
Date: _____ **Block:** _____

Review: **Subtract** $(5x^2 - 3x + 2) - (8x^2 - 4x + 1)$

$+ -8x^2 + 4x - 1$

$-3x^2 - 7x + 3$

Factor the expressions:

1. $x^2 + 16x + 64$ No GCF

$x \cdot x$; $1 \cdot 64$, $2 \cdot 32$, $4 \cdot 16$, $8 \cdot 8$

$(x+8)(x+8)$

2. $3x^2 + 19x + 6$ No GCF

$3x \cdot x$; $6 \cdot 1$, $3 \cdot 2$

$(3x+1)(x+6)$

3. $\frac{2x^2}{2} + \frac{16x}{2} + \frac{32}{2}$ GCF of 2

$2(x^2 + 8x + 16)$

$x \cdot x$; $1 \cdot 16$, $2 \cdot 8$, $4 \cdot 4$

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

4. $x^2 + 6x + 9$ No GCF

$x \cdot x$; $1 \cdot 9$, $3 \cdot 3$

$(x+3)(x+3)$

5. $5x^2 + 36x + 7$ No GCF

$5x \cdot x$; $1 \cdot 7$

$(5x+1)(x+7)$

6. $\frac{2x^2}{2} + \frac{26x}{2} + \frac{60}{2}$ GCF of 2

$2(x^2 + 13x + 30)$

$x \cdot x$; $1 \cdot 30$, $2 \cdot 15$, $3 \cdot 10$, $6 \cdot 5$

$2(x+3)(x+10)$

7. $7x^2 + 22x + 16$ No GCF

$7x \cdot x$; $1 \cdot 16$, $2 \cdot 8$, $4 \cdot 4$

$(7x+8)(x+2)$

8. $x^2 + 6x + 8$ No GCF

$x \cdot x$; $1 \cdot 8$, $2 \cdot 4$

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

9. $2x^2 + 21x + 10$ No GCF

$2x \cdot x$; $2 \cdot 5$, $1 \cdot 10$

$(2x+1)(x+10)$

10. Determine the values of *k* and *n*.

a. $(x + 4)(x + k) = x^2 + nx + 24$ (6, 10)

$K = 6$
$n = 10$

b. $(x + k)(x + 1) = x^2 + nx + 5$ (5, 6)

$K = 5$
$n = 6$

c. $(x + 5)(x + K) = x^2 + 8x + n$ (3, 15)

$K = 3$
$n = 15$