

Name: _____ Period: _____ Date: _____

GCF and Factor by Grouping Solving.

Solve the following quadratic equations by GCF.

1. $20x^2 + 5x = 0$	2. $30u^2 = 6u$
3. $-10a^2 - 15a = 0$	4. $x^2 + 7x = 9x$

Solve the following quadratic equations by Grouping.

5. $x^2 + 3x - 9x - 27 = 0$	6. $x^3 + 2x^2 - 4x = 8$
7. $2x^2 - 5x + 6x - 15 = 0$	8. $3x^2 - 4x - 21x + 28 = 0$

9. $4x^2 + 6x + 6x = -9$

10. $5x^2 - x + 10x - 2 = 0$

Factor the following trinomials by using grouping.

11.

$r^2 + 9r + 20$

12.

$p^2 + 4p - 5$

13.

$x^2 + 3x - 4$

14.

$x^2 - 7x + 12$

15.

$n^2 - 4n + 3$