

Name \_\_\_\_\_

Date \_\_\_\_\_

### Factoring Polynomials by Grouping

Find the Greatest Common Factor (GCF) for each binomial.

1)  $(3x^2 + 6x)$  GCF= \_\_\_\_\_ 2)  $(2y + 14by)$  GCF= \_\_\_\_\_ 3)  $(7bx^2 + 21abx)$  GCF= \_\_\_\_\_

Factor the Following Polynomials by Grouping and Check Your Answer

4)  $x^4 + x^3 + 5x^2 + 5x$

5)  $2x^3 + x^2 + 2x + 1$

6)  $7abx^5 + 7abx^4 - 3cx^3 - 3cx^2$

7)  $6x^3 + 2x^2 + 18x + 6$

OVER

8)  $3x^3 + 2x^2 + 15x + 10$

9)  $3x^5 + 7x^4 - 6x^3 - 14x^2$

10)  $35abcx^4 + 20abx^3 - 21cx - 12$