

Name \_\_\_\_\_  
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Date \_\_\_\_\_  
Algebra 2

## *Factoring by Grouping*

**Factor the following polynomials**

1.  $x^3 - 5x^2 + 2x - 10$

2.  $x^3 + 3x^2 + 4x + 12$

3.  $8x^3 + 2x^2 + 12x + 3$

4.  $6x^3 + 9x^2 + 6x + 9$

5.  $4x^3 + 12x^2 - 3x - 9$

6.  $x^3 + 12x^2 - 2x - 24$

$$7. x^3 + 6x^2 - 3x - 18$$

$$8. x^3y^2 + 4x^2y^2 - 4x - 16$$

$$9. x^3 + 3x^2 - 9x - 27$$

$$10. 8x^3 + 12x^2 - 2x - 3$$

$$11. x^3 + 10x^2 - 9x - 90 = 0$$

$$12. 27x^3 + 36x^2 - 12x - 16 = 0$$