

Name _____
Mr. Schlansky

Date _____
Algebra II

Factoring By Grouping II

Factor the following polynomials

1. $x^3 - 3x^2 + 2x + 4x^2 - 12x + 8$

2. $3x^3 + x^2 - 12x^2 - 4x - 63x - 21$

3. $t^4 - 3t^3 - 18t^2 - t^2 + 3t + 18$

4. $x^3 - 2x^2 - 8x^2 + 16x + 15x - 30$

$$5. w^3 + 2w^2 - 3w + w^2 + 2w - 3$$

$$6. 2x^3 - 5x^2 - 3x + 14x^2 - 35x - 21$$

$$7. k^4 - 4k^2 + 8k^3 - 32k + 12k^2 - 48?$$

$$8. a^4 + 2a^3 - 3a^2 - a^3 - 2a^2 + 3a - 6a^2 - 12a + 18$$

$$9. 2a^4 + 14a^3 + 20a^2 - 9a^3 - 63a^2 - 90a + 4a^2 + 28a + 40$$