

Name: _____

Unit 7: Polynomials & Factoring

Date: _____ Bell: _____

Homework 9: Factoring Four Terms (Grouping)**Directions:** Factor each polynomial. Check your answer by distributing.

1. $x^3 + x^2 + 2x + 2$

2. $9y^3 + 18y^2 + y + 2$

3. $3x^3 - 15x^2 - 2x + 10$

4. $6w^3 + 4w^2 + 3w + 2$

5. $x^3 + 4x^2 + 2x + 8$

6. $10a^3 + 4a^2 + 5a + 2$

7. $7k^3 - 35k^2 + 6k - 30$

8. $2m^3 - 6m^2 - 3m + 9$

9. $4n^3 + 3n^2 + 4n + 3$

10. $10x^2 + 2xy - 15x - 3y$

11. $9x^2 - 3xy + 6x - 2y$

12. $12a^2 - 15ab - 8a + 10b$

13. $20v^3 - 8v^2 + 15v - 6$

14. $4m^2 + 16mn - 7m - 28n$

15. $2x^3 + x^2y - 6xy^2 - 3y^3$

16. $12a^3 + 4a^2 + 3ab + b$

17. $u^3 - u^2v + uv^2 - v^3$

18. $5x^2y - x^2 + 5y - 1$