

Factoring Worksheet 5: Factoring by Grouping and Factoring Review

Factor each of the following polynomials by grouping.

1. $x^3 - 2x^2 + 3x - 6$

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

3. $4m^3 + 4m^2 - m - 1$

4. $m^4 + 3m^3 - m - 3$

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

Factor each of the following polynomials by any method. Multiply your answers out to check.

6. $x + x^2 - 20$

7. $6x^2 - 25x - 9$

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

9. $-5m^2 + 80$

10. $3a^2b + 12ab^2$

11. $8y^3 + 125$

12. $8y^2 + 32$

13. $3m^3 - m^2 - 27m + 9$

14. $3x^2 - 4x - 15$

15. $-24x^3 + 10x^2 + 4x$