

**Factoring Polynomials**  
Emphasis on Factoring Polynomials by Grouping

Completely factor each of the following by Grouping:

1. $4v^3 - 12v^2 - 5v + 15$	2. $49x^3 - 35x^2 + 56x - 40$
3. $24p^3 + 15p^2 - 56p - 35$	4. $24r^3 - 64r^2 - 21r + 56$
5. $8r^3 - 64r^2 + r - 8$	6. $12p^3 - 21p^2 + 28p - 49$
7. $12x^3 + 2x^2 - 30x - 5$	8. $6v^3 - 16v^2 + 21v - 56$
9. $63n^3 + 54n^2 - 105n - 90$	10. $21k^3 - 84k^2 + 15k - 60$

11. $25v^3 + 5v^2 + 30v + 6$	12. $105n^3 + 175n^2 - 75n - 125$
13. $96n^3 - 84n^2 + 112n - 98$	14. $28v^3 + 16v^2 - 21v - 12$
15. $12a^3 - 9a^2 + 4a - 3$	16. $2p^3 + 5p^2 + 6p + 15$
17. $3n^3 - 4n^2 + 9n - 12$	18. $12n^3 + 4n^2 + 3n + 1$
19. $m^3 - m^2 + 2m - 2$	20. $5n^3 - 10n^2 + 3n - 6$