

Factoring Polynomials

Factoring Polynomials: U-Substitution, Sum of Cubes, Difference of Cubes, Polynomials - Completion

Completely factor each of the following using U-Substitution:

1. $x^4 - 2x^2 - 15$	2. $x^4 - 13x^2 + 40$
3. $2x^4 + x^2 - 6$	4. $8x^4 + 10x^2 - 3$

Completely factor each of the following using SOAP:

5. $x^3 + 2197$	6. $x^3 + 1331$
7. $64x^3 + 729$	8. $216x^3 + 27$

Completely factor each of the following using SOAP:

9. $x^3 - 1000$	10. $x^3 - 512$
11. $343x^3 - 8$	12. $125x^3 - 1$

Completely factor each of the following by Grouping:

13. $x^3 + x^2 + 2x + 2$	14. $y^3 - 9y^2 + y - 9$
15. $z^3 - 4z^2 + 3z - 12$	16. $2s^3 - 3s^2 + 18s - 27$