

Solving Equations

Solving Polynomial, Logarithmic, & Exponential Equations – Accuracy

Solve each of the following:

1. $x^4 - 8x^2 + 15 = 0$

2. $x^4 - 8x^3 - x^2 + 68x - 84 = 0$

3. $x^3 + 14x^2 + 41x - 56 = 0$

4. $x^3 + 3x^2 - 5x - 15 = 0$

5. $x^4 + 4x^3 - 21x^2 - 4x + 20 = 0$

6. $x^4 - 3x^3 - 9x^2 + 15x + 20 = 0$

Solve each of the following Exponential Equations:

7. $2^{x+6} = 2^5$	8. $9^{2x-5} = 27$
9. $25^{2x-1} = 125^{3x+4}$	10. $8^{2x-3} = \left(\frac{1}{16}\right)^{x-2}$
11. $4^{3x+5} = 8^{4x-3}$	12. $3^{2x-5} = 81$

Solve each of the following Logarithmic Equations:

13. $\log_3(4 - x) = \log_3(x + 8)$	14. $\log_3(7x + 3) = \log_3(5x + 9)$
15. $\log_6(x + 1) - \log_6 x = \log_6 29$	16. $\log_5 6 + \log_5(2x^2) = \log_5 48$