

MAT 171 - Section 1.6: Other Types of Equations

Find all solutions of the equations:

1) $9x^4 - 24x^3 + 16x^2 = 0$

2) $x^4 + 5x^2 - 36 = 0$

3) $4x^4 = 13x^2 - 9$

4) $4x^3 - 12x^2 = 9x - 27$

5) $\sqrt{20-8x} = x$

6) $\sqrt{x} - 3 = x - 9$

7) $x - \sqrt{x+11} = 1$

8) $\sqrt{x+5} + \sqrt{x-3} = 2$

9) $\sqrt{x+1} - \sqrt{2x+3} = 1$

10) $x^{\frac{3}{2}} = 27$

11) $(x+5)^{\frac{2}{3}} = 4$

12) $(x^2 - 3x + 3)^{\frac{3}{2}} - 1 = 0$

13) $x^4 - 13x^2 + 36 = 0$

14) $2x - 7\sqrt{x} - 30 = 0$

15) $x^{\frac{2}{5}} + x^{\frac{1}{5}} - 6 = 0$
