

B3 Quadratic Equations and Functions

Lesson 1/ Worksheet 1

Solve the following quadratic equations with formula method in your notebook and describe the nature of roots using the drop-down on the right column of each question.

1. $x^2 - 8x + 16 = 0$

2. $2n^2 - 16n + 40 = 0$

3. $x^2 - 49 = 0$

4. $5k^2 + 20k + 25 = k^2$

5. $x^2 - x - 6 = -6 - 7x$

6. $10x - \frac{1}{x} = 3$

7. $\frac{x+1}{x-1} - \frac{x-1}{x+1} = \frac{5}{6}, \quad x \neq 1, -1$

8. $x^2 - 2x + 5 = 0$

9. $\sqrt{2}x^2 - 3x - 2\sqrt{2} = 0$

10. $x^2 + 4ix - 4 = 0$

11. $3x^2 - 17x + 25 = 0$