

Quadratic equations

charan.N (charan.n@sriprakashschools.com)

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10th Maths - Chapter 4

This is Problem-1(iii) from Exercise 4.3
find the roots of the quadratic equation

$$4x^2 + 4\sqrt{3}x + 3 = 0 \quad (1)$$

(2)

Solution: :

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \quad (3)$$

$$x = \frac{-4\sqrt{3} \pm \sqrt{(4\sqrt{3})^2 - 4 \times 4 \times 3}}{2 \times 4} \quad (4)$$

$$x = \frac{-4\sqrt{3} \pm \sqrt{48 - 48}}{8} \quad (5)$$

$$x = \frac{-4\sqrt{3} \pm \sqrt{0}}{8} \quad (6)$$

$$x = \frac{-\sqrt{3}}{2}, \frac{-\sqrt{3}}{2} \quad (7)$$

(8)