

# Quadratic Equations

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## Class 10<sup>th</sup> Maths - Chapter 4

This is Problem-2 from Exercise 4.3

1. Find the roots of the quadratic equations by applying the quadratic formula

$$(i) 2x^2 - 7x + 3 = 0$$

**Solution:**

Given Data:  $(2x^2 - 7x + 3 = 0)$

Quadratic formula:  $\left(x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}\right)$

$$\left(x = \frac{-(-7) \pm \sqrt{(-7)^2 - 4 \times 2 \times 3}}{2 \times 2}\right) \quad (1)$$

$$\left(x = \frac{7 \pm \sqrt{49 - 24}}{4}\right) \quad (2)$$

$$\left(x = \frac{7 \pm \sqrt{25}}{4}\right) \quad (3)$$

$$(4)$$

1st condition

$$x = \frac{7 + 5}{4} \quad (5)$$

$$x = \frac{12}{4} \quad (6)$$

$$x = 3 \quad (7)$$

$$(8)$$

2nd condition

$$x = \frac{7-5}{4} \tag{9}$$

$$x = \frac{2}{4} \tag{10}$$

$$x = \frac{1}{2} \tag{11}$$

$$\tag{12}$$

*hencetherootsare* :  $x = \frac{1}{2}, x=3$