

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

This is Problem-1(iii) from Exercise 4.2

$$(\sqrt{2}x^2 + 7x + 5\sqrt{2}) = 0$$

**Solution:**

$$\left(x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}\right) \quad (1)$$

$$\left(x = \frac{-7 \pm \sqrt{-7^2 - 4 \times \sqrt{2} \times 5\sqrt{2}}}{2 \times \sqrt{2}}\right) \quad (2)$$

$$\left(x = \frac{-7 \pm \sqrt{49 - 40}}{2\sqrt{2}}\right) \quad (3)$$

$$\left(x = \frac{-7 \pm \sqrt{9}}{2\sqrt{2}}\right) \quad (4)$$

$$\left(x = \frac{-4}{2\sqrt{2}}\right) \quad (5)$$

$$\left(x = \frac{-4 \times 2\sqrt{2}}{2\sqrt{2} \times 2\sqrt{2}}\right) \quad (6)$$

$$\left(x = \frac{-8\sqrt{2}}{8}\right) \quad (7)$$

$$(x = -\sqrt{2}) \quad (8)$$

$$(9)$$

or

$$\left(x = \frac{-7 - \sqrt{49 - 40}}{2\sqrt{2}}\right) \quad (10)$$

$$\left(x = \frac{-7 - \sqrt{9}}{2\sqrt{2}}\right) \quad (11)$$

$$\left(x = \frac{-10}{2\sqrt{2}}\right) \quad (12)$$

$$\left(x = \frac{-10 \times 2\sqrt{2}}{2\sqrt{2} \times 2\sqrt{2}}\right) \quad (13)$$

$$\left(x = \frac{-20\sqrt{2}}{8}\right) \quad (14)$$

$$\left(x = \frac{-5}{\sqrt{2}}\right) \quad (15)$$