## $10^{th}$ Maths - Chapter 4

This is Problem-1(iii) from Exercise 4.2  $(\sqrt{2}x^2 + 7x + 5\sqrt{2}) = 0$ 

## Solution:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \tag{1}$$

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

$$x = \frac{-7 \pm \sqrt{-7^2 - 4 \times \sqrt{2} \times 5\sqrt{2}}}{2 \times \sqrt{2}}$$

$$(2)$$

$$x = \frac{-7 + \sqrt{49 - 40}}{2\sqrt{2}} \tag{3}$$

$$x = \frac{-7 + \sqrt{9}}{2\sqrt{2}}\tag{4}$$

$$x = \frac{-4}{2\sqrt{2}}\tag{5}$$

$$x = \frac{-4 \times 2\sqrt{2}}{2\sqrt{2} \times 2\sqrt{2}} \tag{6}$$

$$x = \frac{-8\sqrt{2}}{8} \tag{7}$$

$$x = -\sqrt{2} \tag{8}$$

(9)

or

$$x = \frac{-7 - \sqrt{49 - 40}}{2\sqrt{2}}$$

$$x = \frac{-7 - \sqrt{9}}{2\sqrt{2}}$$

$$x = \frac{-10}{2\sqrt{2}}$$

$$x = \frac{-10 \times 2\sqrt{2}}{2\sqrt{2} \times 2\sqrt{2}}$$

$$x = \frac{-20\sqrt{2}}{8}$$

$$x = \frac{-5}{\sqrt{2}}$$
(10)
$$x = \frac{10}{2\sqrt{2}}$$
(11)
$$x = \frac{10}{2\sqrt{2}}$$
(12)

$$x = \frac{-7 - \sqrt{9}}{2\sqrt{2}} \tag{11}$$

$$x = \frac{-10}{2\sqrt{2}}\tag{12}$$

$$x = \frac{-10 \times 2\sqrt{2}}{2\sqrt{2} \times 2\sqrt{2}} \tag{13}$$

$$x = \frac{-20\sqrt{2}}{8} \tag{14}$$

$$x = \frac{-5}{\sqrt{2}} \tag{15}$$