

$$\textcircled{1} \quad 2x^2 - 7x + 3 = 0$$

$$(x2) \quad 4x^2 - 14x + 6 = 0$$

$$\Rightarrow (2x)^2 - 2 \times 2x \times \frac{7}{2} + \left(\frac{7}{2}\right)^2 - \left(\frac{7}{2}\right)^2 + 6 = 0$$

$$\Rightarrow \left(2x - \frac{7}{2}\right)^2 + 6 - \frac{49}{4} = 0$$

$$\Rightarrow \left(2x - \frac{7}{2}\right)^2 + \frac{24 - 49}{4} = 0$$

$$\Rightarrow \left(2x - \frac{7}{2}\right)^2 - \frac{25}{4} = 0$$

$$\Rightarrow \left(2x - \frac{7}{2}\right)^2 - \left(\frac{5}{2}\right)^2 = 0$$

$$\Rightarrow \left(2x - \frac{7}{2} - \frac{5}{2}\right) \left(2x - \frac{7}{2} + \frac{5}{2}\right) = 0$$

$$\Rightarrow 2x - \frac{7}{2} - \frac{5}{2} = 0, \quad 2x - \frac{7}{2} + \frac{5}{2} = 0$$

$$\Rightarrow 2x = \frac{12}{2}, \quad 2x = \frac{2}{2}$$

$$\Rightarrow x = \frac{6}{2}, \quad \Rightarrow x = \frac{2}{4} = \frac{1}{2}$$

$$\Rightarrow x = 3, \quad \Rightarrow x = \frac{1}{2}$$

$$\therefore x = \frac{1}{2}, 3 \quad \therefore \text{roots are } \frac{1}{2}, 3$$

$$\left[ \begin{array}{l} 2ab = +14x \\ 2 \times 2x \times b = +14x \\ b = \frac{+14x}{4x} \\ b = \frac{7}{2} \end{array} \right]$$

$$\textcircled{11} \quad 2x^2 + x - 4 = 0$$

$$(x2) \quad 4x^2 + 2x - 8 = 0$$

$$\Rightarrow (2x)^2 + 2 \times 2x \times \frac{1}{2} + \left(\frac{1}{2}\right)^2 - \left(\frac{1}{2}\right)^2 - 8 = 0$$

$$\Rightarrow \left(2x + \frac{1}{2}\right)^2 - \frac{1}{4} - \frac{8}{1} = 0$$

$$\Rightarrow \left(2x + \frac{1}{2}\right)^2 - \frac{33}{4} = 0$$

$$\Rightarrow \left(2x + \frac{1}{2}\right)^2 - \left(\frac{\sqrt{33}}{2}\right)^2 = 0$$

$$\Rightarrow \left(2x + \frac{1}{2} - \frac{\sqrt{33}}{2}\right) \left(2x + \frac{1}{2} + \frac{\sqrt{33}}{2}\right) = 0$$

$$\Rightarrow 2x + \frac{1}{2} - \frac{\sqrt{33}}{2} = 0, \quad 2x + \frac{1}{2} + \frac{\sqrt{33}}{2} = 0$$

$$\Rightarrow 2x = \frac{\sqrt{33} - 1}{2}, \quad 2x = -\frac{\sqrt{33} + 1}{2}$$

$$\Rightarrow x = \frac{\sqrt{33} - 1}{4}, \quad \Rightarrow x = -\frac{\sqrt{33} + 1}{4}$$

$$\left[ \begin{array}{l} 2ab = 2x \\ 2 \times 2x \times b = 2x \\ b = \frac{2x}{4x} \\ \Rightarrow b = \frac{1}{2} \end{array} \right]$$

$$\therefore \text{roots are } \frac{\sqrt{33} - 1}{4}, -\frac{\sqrt{33} + 1}{4}$$