

$$x + 3x = + \frac{a}{3}$$

$$3x^2 = \frac{a}{3}$$

$$9x^2 = a$$

$$x = \pm \frac{\sqrt{a}}{3}$$

$$\pm \frac{\sqrt{a}}{3} + 3\left(\pm \frac{\sqrt{a}}{3}\right) = \pm \frac{4\sqrt{a}}{3}$$

$$\frac{4\sqrt{a}}{3} - \left(-\frac{4\sqrt{a}}{3}\right) = \frac{14}{3}$$

$$\sqrt{\frac{1}{x_1}} + \sqrt{\frac{1}{x_2}} = 5$$

$$x_1 x_2 = \frac{1}{34}$$

$$x_1 + x_2 = \frac{m+18}{25}$$

$$\frac{1}{x_1} + \frac{1}{x_2} + 9\sqrt{\frac{1}{x_1 x_2}} = 25 \rightarrow m+18 + 2\sqrt{34} = 25$$

$$m = -1$$

$$\frac{2}{-1} = \boxed{-2} \checkmark$$

$$(Px + q)(x^2 + (-1)x - 2) = 4x^3 + 11x - 9 - 2 = Px^2 + (q-p)x + (-q-2p)x$$

جمع ریشه ها -

$$p = 4$$

$$\boxed{-3} \checkmark$$

$$q = 1$$

$$(\alpha - \beta)^2 = 5 - 4ap$$

$$\alpha - \beta = \sqrt{34 - 4a}$$

$$3\alpha^2 + 2\beta^2 = 12\sqrt{2} + 10 = \frac{5}{2}(\alpha^2 + \beta^2) + \frac{1}{2}(\alpha^2 - \beta^2) = \frac{5}{2}(5 + 2p) + \frac{1}{2}(4 + 3)(\alpha - \beta)$$

$$\frac{5}{2}(34 - 2a) - \frac{1}{2}(-4)(\sqrt{34 - 4a}) = 12\sqrt{2} + 10 \Rightarrow 9 - 5a = 10 \Rightarrow a = 1$$

$$t^2 - vt - 5 = 0 \Rightarrow t = \frac{v \pm \sqrt{v^2 + 20}}{2} = x^2 \Rightarrow \frac{v - \sqrt{v^2 + 20}}{2}$$

$$x = \pm \sqrt{\frac{v + \sqrt{v^2 + 20}}{2}}$$

$$\Rightarrow S = 0$$

$$P = \frac{v + \sqrt{v^2 + 20}}{2}$$

$$p^2 - 25p - 25 = \left(\frac{v + \sqrt{v^2 + 20}}{2}\right)^2 = \frac{59 + v\sqrt{v^2 + 20}}{2}$$

$$\frac{a}{r} = \frac{-a}{ra} + 1$$

$$a = 1$$

$$4x^2 + 4x - 4 = 0$$

$$\alpha + \beta = -\frac{1}{2}$$

$$\alpha\beta = -1$$

$$\left[\frac{(1)(-1)}{2} \right] = -\frac{1}{2}$$

$$\left(\alpha + \frac{1}{r} \right) \left(\beta + \frac{1}{r} \right) = -1 + \frac{1}{r}(\alpha + \beta) + \frac{1}{r^2} = -1$$

$$|\alpha - \beta| = \frac{\sqrt{\Delta}}{|\alpha|} = \frac{\sqrt{a^2 + 4ab}}{a}$$

$$\epsilon_0 \beta^r + \gamma_0 \alpha^r - \gamma_0 \beta = 14$$

$$\alpha + \beta = 1$$

$$\alpha - \beta = 1 - \beta$$

$$\alpha^r = \beta^r + 1 - \gamma_0 \beta$$

$$\gamma_0 \beta^r - \epsilon_0 \beta + \gamma_0 = 14$$

$$\alpha = 1 - \beta = 0 \mp \frac{2\sqrt{5}}{5}$$

$$4\beta^r - 4\beta + 1 = 0$$

$$4\beta^r - 2\beta + 1 = 0 \Rightarrow \beta = \frac{0 \pm \sqrt{5}}{2}$$

$$a = x_1 x_2$$

$$a + 1 = x_1 + x_2$$

$$\begin{aligned} \Downarrow \\ x_1 &= 1 \\ x_2 &= 3 \end{aligned}$$

$$a = 3$$

$$x_1 x_2 = 1 \times 3 = 3$$

$$x^2 - 4x + 3 = 0$$

$$\alpha + \beta = 4 \Rightarrow \alpha = 1, \beta = 3$$

$$\alpha\beta = 3 = 4 \times \frac{3}{4} = 3$$

$$r^2 - r = 1$$

$$\Delta > 0 \quad (1) + \epsilon + m' > 0 \Rightarrow m \in \mathbb{R}$$

$$\alpha^r + \beta^r = (\alpha + \beta)^r - r\alpha\beta = (-1)^r + r + m'$$

$$\alpha + \beta = 3$$

$$(1) + \epsilon + m' \Rightarrow m = 0$$

عوض اس میں

$$\frac{-0 + 3}{2} = -1$$

$$a(x - (1 - \frac{\sqrt{3}}{2})) (x + \frac{\sqrt{3}}{2}) = y \rightarrow a(x - \frac{\sqrt{3}}{2})(x + \frac{\sqrt{3}}{2}) = 1$$

$$(-1 + \frac{\sqrt{3}}{2}) + (-1 - \frac{\sqrt{3}}{2}) = a$$

$$-2 = a$$

$$\alpha = 1 + \frac{\sqrt{3}}{2}$$

$$\beta = 1 - \frac{\sqrt{3}}{2}$$

$$\frac{3}{2}a = 1$$

$$a = \frac{2}{3}$$