

$$kx^2 - ax + k = 0$$

(۱۶)

$$\alpha = \alpha \quad \beta = k\alpha$$

$$\frac{k}{k} = \frac{k}{k} \Rightarrow \frac{k}{k} = \frac{k}{k} = 2^2 \rightarrow \alpha = \pm \frac{k}{k}$$

$$5 + \frac{k}{k} \rightarrow \frac{k}{k} + k \left( \frac{k}{k} \right)^2 = \frac{k}{k} \quad \alpha = -\frac{k}{k}$$

$$- \frac{k}{k} \rightarrow -\frac{k}{k} + k \left( -\frac{k}{k} \right) = \frac{-k - k}{k} = -\frac{2k}{k} \rightarrow \alpha = \frac{k}{k}$$

$$\text{اختلاف دو مقدار} \rightarrow \frac{k}{k} - \left( -\frac{k}{k} \right) = \frac{2k}{k}$$

$$kx^2 - (m+k)x + 1 = 0$$

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$$\left( \sqrt{\frac{1}{a}} + \sqrt{\frac{1}{b}} \right)^2 = \omega^2$$

$$\frac{1}{a} + \frac{1}{b} + 2\sqrt{\frac{1}{ab}} = \frac{m+k}{k} + 2\sqrt{\frac{1}{\frac{1}{k^2}}} = \omega$$

$$m+k + 2(k) = \omega$$

$$m + 2k = \omega \rightarrow m = -2k$$

$$\frac{k}{m} \rightarrow \frac{k}{-2k} \rightarrow \text{مقادیر}$$

$$kx^2 + kx - ax - k = 0$$

$$ab = -k \quad a + b = 1$$

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$$\frac{1}{a} + \frac{1}{b} \rightarrow (x-a)(x-b) = x^2 - (a+b)x + ab$$

$$(x-k)(x+1) = 0 \quad \begin{matrix} x=k \\ x=-1 \end{matrix}$$

$$\alpha = k \quad \beta = -1 \rightarrow -k + k + 1 - k = 0$$

$$k = -1$$

$$x^2 - vx - \omega = 0$$

So, P.

(2)

$$t^2 - vt - \omega = 0$$

$$t = x$$

$$t = \frac{v \pm \sqrt{4\omega}}{2}$$

$$\frac{v - \sqrt{4\omega}}{2}$$

Q. Q. S.

$t \geq 0$  is

$$\frac{v + \sqrt{4\omega}}{2} = t$$

$$\rightarrow x = \pm \sqrt{\frac{v + \sqrt{4\omega}}{2}}$$

$$S = 0$$

$$P = \frac{-v - \sqrt{4\omega}}{2}$$

$$P \left( - \left( \frac{v + \sqrt{4\omega}}{2} \right) \right)^2$$

$$= \frac{4\omega + 4\omega + 16\sqrt{4\omega}}{4}$$

$$= \frac{11\omega + 16\sqrt{4\omega}}{4}$$

$$= \omega + v\sqrt{4\omega}$$

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$$pa^r + a^r - 4 = 0$$

$$\omega \rightarrow \alpha, \beta \quad a, \beta = -r$$

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

$$\left[ \frac{ab}{r} \right] = \left[ \frac{-4}{r} \right] = (-r)$$

$$pa^r - a^r + b = 0$$

(4)

$$\omega \rightarrow a + \frac{1}{r}, \beta + \frac{1}{r}$$

$$a + \beta + 1 = \frac{a}{r} \rightarrow a = 1$$

$$(a + \frac{1}{r})(\beta + \frac{1}{r})$$

$$a\beta + \frac{a}{r} + \frac{\beta}{r} + \frac{1}{r}$$

$$b = 4 \leftarrow \frac{b}{r} = -r \leftarrow -r - \frac{1}{r} + \frac{1}{r} = (-r)$$

$$an^r - an - b = 0$$

(5)

$$r_0 \beta^r + r_0 \alpha^r - r_0 \beta = 14 \rightarrow r_0 \beta^r + r_0 (1 - \beta)^r - r_0 \beta = 14$$

$$r_0 \beta^r + r_0 + r_0 \beta^r - r_0 \beta - r_0 \beta = 14$$

$$a + \beta = 5 \rightarrow \left( \frac{-a}{\alpha} \right) = 1$$

$$4_0 \beta^r - 4_0 \beta + r = 0$$

↓

$$\alpha = 1 - \beta$$

$$r_0 \beta^r - r_0 \beta + 1 = 0$$

$$\beta = \frac{r_0 \pm \sqrt{r_0^2 - 4r_0}}{2r_0} = \frac{\omega \pm \sqrt{\omega}}{1_0}$$

$$\alpha = 1 - \beta = 1 - \frac{\omega - \sqrt{\omega}}{1_0} = \frac{\omega + \sqrt{\omega}}{1_0} \rightarrow |\alpha - \beta| = \frac{\sqrt{\omega}}{\omega}$$

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$$\alpha = 1 - \beta = 1 - \frac{\omega + \sqrt{\omega}}{1_0} = \frac{\omega - \sqrt{\omega}}{1_0} \Rightarrow \frac{\sqrt{\omega}}{\omega} = |\alpha - \beta|$$

$$r_{t+1}, r_{t+2} \leftarrow 2^r - (a+1)a + a = 0$$

(A)

$$r_{t+2} + r_{t+1} = a+1 \Rightarrow a, r_{t+2} \leftarrow 2^r - (ra+1)a + b = 0$$

$$r_{t+2} + r_{t+1} = a$$

$$r_k, r_{k+1}$$

↓

$$r_{k+2} = r_{k+1} + 1 \rightarrow a = \frac{r_{k+1}}{r_k}$$

$$r_{t+2} + r_{t+1} = r_{t+1}$$

$$r_k^r + r_k = b$$

$$r_{t+2} + r_{t+1} = 0$$

$$r_t(t+1) = 0 \rightarrow a = r$$

$$\frac{r_{k+1}}{r_k} = r$$

$$t = 0, 1, 2, \dots \quad |r - r_k| = r$$

$$k = r - r_k = 1 - 1$$



$$2^r + 1 - 1 - m^r = 0$$

(9)

$$a^r + \beta^r = s^r \quad r p = 1 + r + r m^r = r + r m^r = r$$

$$s = -1$$

$$0 = \text{المساواة}$$

$$p = \frac{-1 - m^r}{1}$$

$$m = 0$$

$$y_s = 1$$

$$a a^r + b a^r + c$$

$$(-a, y) \rightarrow (r, y)$$

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$$a - b + c = 1$$

مساواة

$$a^r + \beta^r - a = s^r - r p$$

$$2s = \frac{r - a}{p} = -1$$

$$r - r p = a \rightarrow p = \frac{-1}{r}$$

$$2s = \frac{-b}{ra} = -1$$

$$ra - ab = 4a + rb$$

$$a + \beta = \frac{-b}{a}$$

$$14a - 11b = 0$$

$$r + 4a = 11b$$

$$r m s = s$$

$$s = -r$$

$$a = \frac{b}{r} \rightarrow \frac{c}{\frac{1}{b/r}} = \frac{-1}{r} \rightarrow \frac{rc}{b} = \frac{-1}{r}$$

$$rc = -b$$

$$b = -rc$$

$$\frac{b}{r} - b + c = 1$$

$$b - rb + rc = r \rightarrow rc - b = r$$

$$rc + rc = r \rightarrow 4c = r$$

$$c = \frac{1}{r}$$

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