

$$S = d \quad P = +r$$

سوال (1)

$$\alpha + \beta = d \quad \alpha/\beta = r \Rightarrow \beta = \frac{r}{\alpha}$$

$$\frac{r\alpha + \frac{r^2}{\alpha}}{d \times \frac{r}{\alpha}} = \frac{\frac{r\alpha^2 + r^2}{\alpha}}{\frac{r_0}{\alpha}} = \frac{r\alpha^2 + r^2}{r_0 \alpha} =$$

$$\frac{1}{d} \alpha^r + \frac{1}{d \alpha^r} = \frac{1}{d} \left(\alpha^r + \frac{1}{\alpha^r} \right) = \frac{1}{d} \times Vd = (2d)$$

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

$$\left(\alpha + \beta \right)^r - r \times r (\alpha + \beta) = \alpha^r + \frac{1}{\alpha^r} = d^r - r(d) = 12d - r_0 = Vd$$

$$\begin{vmatrix} -\frac{r}{r} & r \\ 1 & -r \end{vmatrix} = \begin{vmatrix} -1 & r \\ 1 & -r \end{vmatrix}$$

سوال (2)

$$y = x^r - Sx + P$$

$$-r = \frac{q}{r} + \frac{r}{r} S + P$$

$$-r = q - rS + P$$

$$0 = \frac{q}{r} - q + \frac{r}{r} S + rS \Rightarrow q - \frac{q}{r} = \frac{q}{r} S \Rightarrow$$

$$\frac{rV}{r} = \frac{q}{r} S \Rightarrow S = \left(\frac{r}{r} \right)$$

$$\frac{(-f) - (-k) \pm \sqrt{(-f)^2 - 4 \cdot 1 \cdot k}}{2 \cdot 1} \times a + k$$

$$x^2 + kx + d = 0$$

سوال ۳) α و β افتداد = $\frac{\sqrt{\Delta}}{|a|} = \frac{\sqrt{f^2 - 4d}}{1} = \sqrt{f^2 - d} = \frac{f}{\frac{1}{f}} k \Rightarrow$

$$f^2 - d = \frac{f}{q} k^2 \Rightarrow \frac{f}{q} k^2 = \frac{1}{q} \Rightarrow k^2 = q$$

$$\left[\frac{q}{f} \right] = [f, d] = f$$

سوال ۴) $\frac{f + (-d)}{f} = 1$ $y_s = 1 = \frac{-\Delta}{fa}$

$\Rightarrow \Delta = -fa$

$$|a - \beta| = \frac{\sqrt{\Delta}}{|a|} = \frac{\sqrt{fa}}{|a|} = \frac{f\sqrt{a}}{a}$$

$-fa = -a \Rightarrow fa = a \Rightarrow |a| = -a$

$k(a - \beta) + f = f(a) \Rightarrow k = \alpha + \beta = f(a)$

$$S \begin{vmatrix} 1 \\ 1 \end{vmatrix} \quad x_s = \frac{-a+r}{r} = -1$$

(سوال ۱)

$$y = an^r + bn + c$$

$$x_s = -\frac{b}{ra} = -1 \Rightarrow b = ra$$

$$\text{سوال ۲}$$

$$(x+\beta)^r = \frac{x^r + \beta^r}{a} + r\alpha\beta$$

$$S = \frac{-b}{a} = \frac{-ra}{a} = -r$$

$$(-r)^r = a + r\alpha\beta \Rightarrow r\alpha\beta = -1 \Rightarrow \alpha\beta = -\frac{1}{r}$$

$$y = x^r - Sx + P \Rightarrow y = x^r + rx - \frac{1}{r}$$

$$y = 0^r + r \times 0 - \frac{1}{r} = \left(-\frac{1}{r}\right) = \text{نقطه } y \text{ در } x=0 \text{ قطع می کند}$$

$$\text{سوال ۳}$$

$$\text{سوال ۴}$$

$$\text{سوال ۵}$$

$$\text{سوال ۶}$$

$$\frac{-b}{ra} = \frac{1r}{rm}$$

$$y = m^r \times \frac{1r}{rm} - 1r \times \frac{1}{m} + am - 1$$

(سوال ۷)

$$r = y = r^a - \frac{vr}{m} + am$$

$$\Rightarrow -vr = am^r - vr \Rightarrow am^r + vr - vr = 0$$

$$\Rightarrow m^r + vr - 1 = 0$$

$$m = a$$

$$m = r$$

$$-a \times r - r$$

Arman

(سوال ۵)

$$-x^2 + dx + m = 0$$

$$\Delta = d^2 - 4(-1)(m) = d^2 + 4m$$

$$x_{1,2} = \frac{-d \pm \sqrt{d^2 + 4m}}{-2} \quad \left\langle \frac{9}{-1} \Rightarrow \right.$$

$$\rightarrow d - \sqrt{d^2 + 4m} < 9 \Rightarrow \sqrt{d^2 + 4m} > -9$$

$$\rightarrow d + \sqrt{d^2 + 4m} < 9 \Rightarrow \sqrt{d^2 + 4m} < 9 - d \quad \xrightarrow{\text{توان}}$$

$$d^2 + 4m < 14 \Rightarrow 4m < -9 \Rightarrow m < -\frac{9}{4}$$

$$\Delta > 0 \Rightarrow d^2 + 4m > 0 \Rightarrow 4m > -d^2 \Rightarrow m > -\frac{d^2}{4}$$

$$-\frac{d^2}{4} < m < -\frac{9}{4} \Rightarrow -\frac{d^2}{4} < m < -1, d^2$$

$$m \text{ مقادیر صحیح} = \{-9, -4, -1, -1\}$$

مقادیر صحیح

$$\gamma/\beta = a^r$$

(V سوال)

$$x^r + r(a+1)x + ra - 1 = 0$$

$$S = -ra - r \quad P = ra - 1 \Rightarrow ra - 1 = a^r \Rightarrow a^r - ra + 1 = 0$$

$$a = +1$$

$$x^r + r(a+1)x + ra - 1 = 0$$

$$t^r - vt - a = 0 \Rightarrow S' = \sqrt{P' - a}$$

$$S = x_1^r + x_2^r \quad P' = x_1^r x_2^r = -a$$

$$x_1^r + x_2^r = \sqrt{P' - a}$$

$$P' = \sqrt{P' - a}$$

$$P' = \sqrt{P' - a}$$

$$x^2 - \frac{v}{t}(x^2) - d = 0$$

(سوال ۸)

$$t^2 - vt - d = 0$$

$$t \begin{cases} + \\ - \end{cases} = x^2 = \begin{cases} + \sqrt{x} \\ - \sqrt{x} \end{cases}$$

عقود

$$r p^2 - r s p + r s = r p^2 \quad \Leftarrow \quad S = 0$$

چون ۲، سه قرینه اند

$$x^2 = p^2 \quad \Leftarrow \quad p = -\sqrt{x} \quad x + \sqrt{x} = -x = \text{چون ۲، سه قرینه اند}$$

$$p^2 - x^2 = t \Rightarrow t = \Delta = b^2 - 4ac = 49 - 4(-5)(1) =$$

$$t_{1,2} = \frac{-b \pm \sqrt{\Delta}}{2a} = \frac{5 \pm \sqrt{49}}{2}$$

$$r p^2 = r t = r x \frac{5 + \sqrt{49}}{2} =$$

چون ۳، سه قرینه اند $x = \frac{r}{t}$ می توانیم متغیر را

$$\text{محل} = \boxed{5 + \sqrt{49}}$$

(سوال ۹)

$$y = km^2 - fx - y$$

$$x_s = \frac{-b}{1a} = \frac{f}{2K}$$

$$y_s = \frac{-\Delta}{fa} = \frac{-(14 - f(-4)(K))}{f \times K} =$$

$$\frac{-14 - f \times K}{f \times K} = \frac{-f - 4K}{K}$$

$$y = -fx - f \xrightarrow{x = \frac{f}{2K} = \frac{1}{K}} y = \frac{-1}{K} - f = \frac{-f - 4K}{K}$$

$$\frac{-fK - 1}{K} = \frac{-f - 4K}{K} \Rightarrow -fK - 1 = -f - 4K \Rightarrow$$

$$2K = f \Rightarrow K = \frac{f}{2} \Rightarrow y_s = \frac{-1}{\frac{f}{2}} - f = \boxed{-\frac{2}{f}}$$

(سوال ۱۰)

$$-mx^2 + mx + 1 = -m - x \Rightarrow$$

$$0 = -mx^2 + (m+1)x + m+1 \Rightarrow \Delta = (m+1)^2 - 4(-m)(m+1)$$

$$= m^2 + 2m + 1 + 4m^2 + 4m \Rightarrow$$

$$\Delta = 5m^2 + 6m + 1 \Rightarrow \Delta < 0 \Rightarrow 5m^2 + 6m + 1 < 0$$

⑥ ← سوال صحیح نیست

$$\frac{-1 \pm \sqrt{1 - 20}}{10} \quad -1 < m < -\frac{1}{5}$$