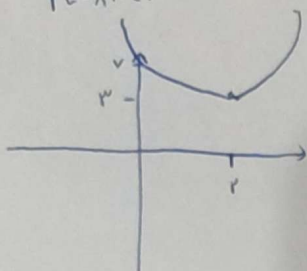
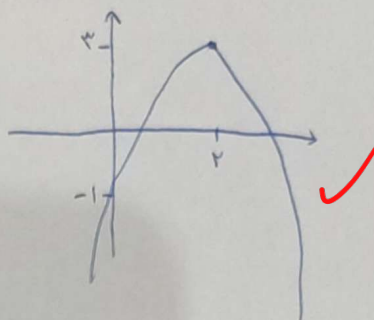


۱۴, ۷۵

الف) $\delta \begin{cases} \frac{x}{y} = 2 \\ x - y + 1 = 3 \end{cases}$

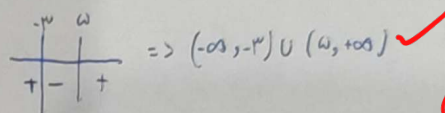


ب) $\delta \begin{cases} \frac{x}{-y} = 2 \\ -x + y - 1 = 3 \end{cases}$



(۲)

الف) $\Delta > 0 \Rightarrow m^2 + 2m + 1 - 6m - 14 \Rightarrow m^2 - 4m - 13 = (m - \omega)(m + 3)$



ب) $\Delta = 0 \Rightarrow m \in \{-3, \omega\}$

(۲)

ج) $\Delta < 0 \Rightarrow (-3, \omega)$

د) $\Delta > 0 \Rightarrow (-\infty, -3] \cup [\omega, +\infty)$

الف) $P > 0 \Rightarrow \frac{10}{m-2} > 0 \Rightarrow m-2 > 0 \Rightarrow m > 2$

$\delta < 0 \Rightarrow \frac{2(m+1)}{m-2} < 0 \Rightarrow \begin{matrix} -1 & 2 \\ + & - \end{matrix} \Rightarrow m > 2 \text{ or } m < -1$

$\Delta > 0 \rightarrow \text{محل } -1 < m < 2$

ب) $\left. \begin{matrix} P < 0 & m < 2 \\ \delta < 0 & m > 2 \text{ or } m < -1 \end{matrix} \right\} -1 < m < 2$

(۱, ۲, ۴)

الف) $\Delta > 0 \Rightarrow (-2(m+1))^2 - 4(m-2) > 0 \Rightarrow m^2 - 4m + 21 = (m+3)^2 + 12 > 0$ برای همه m صادق است. $\frac{C}{a} < 0 \Rightarrow \frac{10}{m-2} < 0 \Rightarrow m < 2$

(۱, ۷, ۵)

ب) $\frac{2(m+1)}{2(m-2)} = -2 \Rightarrow 2m+2 = -4m+8 \Rightarrow 6m=6 \Rightarrow m=1$

۴

$(2 \sin \alpha)^2 - 4 \left(\frac{2}{3} \right)^2 \geq 0 \Rightarrow 4 \sin^2 \alpha - \frac{16}{9} \geq 0 \Rightarrow \sin^2 \alpha \geq \frac{4}{9} \Rightarrow \sin \alpha = \pm \frac{2}{3} \Rightarrow \frac{2}{3} x^2 - 2x + \frac{3}{2} = 0$ چرا ادا نمیداد؟

$\sin \alpha = 1 \rightarrow \frac{2x^2}{3} - 2x + \frac{3}{2} = 0 \rightarrow (2x-3)^2 = 0 \rightarrow x = \frac{3}{2}$

(۱)

$\sin \alpha = -1 \rightarrow$ مقدار بیش متغیر نیست
خطا سوال نیست!

۵

$$\frac{(x_k+1)(x_{k+1})(x_k-\omega)(x_{k+1})}{-(x_{k+1})(x_{k+1})} = -(x_k+1)(x_k-\omega) \Rightarrow -x_k^2 + \omega x_k + x_k \Rightarrow \frac{-\Delta}{E_M} = \frac{-120-129}{-28} = \frac{249}{28} \checkmark$$

(۲)

۶

$$V_S + V = \omega P = \frac{V_m + y}{m} + \frac{V_m}{m} = \frac{-10}{m} \Rightarrow V_m + y + Vm = -10 \Rightarrow 10m = -14 \Rightarrow m = -1.4$$

$$V_S = \Delta C + V$$

$$S = \frac{E}{10} \quad P = \frac{\omega}{E} \Rightarrow \alpha^r + \beta^r = S^r - P = \frac{14}{100} - \frac{10}{E} = \frac{14 - 1000}{100} = \frac{-986}{100} = -9.86$$

(۱) ← بخاطر رای درست

۷

$$V(-\frac{b}{a}) = \omega(\frac{c}{a}) + V$$

$$\frac{V_m + y}{m} = \frac{-10}{m} + V \rightarrow \boxed{m = -1.4} \rightarrow \alpha^r + \beta^r = S^r - P = \frac{14}{E}$$

$$S = \omega \Rightarrow \alpha\beta = r \Rightarrow \beta = \frac{r}{\alpha} \Rightarrow \frac{f_\alpha}{\alpha\beta^r} + \frac{f_\beta}{\alpha} = \frac{E_\alpha}{\frac{r_0}{\alpha^r}} + \frac{f_\beta}{\omega} = \frac{\alpha^r}{\alpha} + \frac{\beta^r}{\omega} = \frac{S^r - P_{SD}}{\omega} =$$

(۲)

۸

$$\frac{120 - 20}{\omega} = \frac{90}{\omega} = \boxed{19} \checkmark$$

$$\begin{aligned} x=2 &\rightarrow 1E = E_a + 2b + E \Rightarrow 10 = E_a + 2b \\ x=3 &\rightarrow E = 9a - 2b + E \Rightarrow 0 = 9a - 2b \end{aligned} \Rightarrow \begin{cases} 12a + 4b = 20 \\ 18a - 4b = 0 \end{cases} \Rightarrow \begin{aligned} a &= 1 \\ b &= 2 \end{aligned} \Rightarrow x^r + 2x + f \Rightarrow \boxed{\frac{-r}{2}} \checkmark$$

(۲)

۹

$$X = Y_k + (m+1)x + m + y \Rightarrow 0 = Y_k + (m+1)x + m + y - X \Rightarrow 0 = Y_k + mX + m + y \Rightarrow \Delta = 0 \Rightarrow m^r - E(r)(m + y)$$

$$m^r - 11m - 87 = 0 \Rightarrow (m-12)(m+7) \Rightarrow m \begin{cases} \rightarrow 12 \text{ صحیح است} \\ \rightarrow -7 \end{cases} \checkmark$$

(۱, ۷, ۸)

۱۰