

نام و نام خانوادگی: احمد رضا خان پاسنامه تشریحی تکلیف شماره: ۱۸ کلاس: ۱۰م سال: ۲۰۲۰

$\omega L +$
 $\Rightarrow \frac{S_{\text{ind}}}{S_{\text{ind}}} = \frac{Y_0 + jY}{Y_0 + jY} = \frac{Y_0 + j\omega C}{\omega}$

(2)



$$\Rightarrow \frac{\sqrt{a^2 + b^2}}{a} = \frac{1 + \sqrt{w}}{r} \xrightarrow{\text{multi}} \frac{a^2 + b^2}{a^2} = \frac{4 + 2\sqrt{w}}{r} \Rightarrow 1 + \left(\frac{b}{a}\right)^2 = \frac{4 + 2\sqrt{w}}{r} \rightarrow \left(\frac{b}{a}\right)^2 = \frac{4 + 2\sqrt{w}}{r}$$

2

$$\xrightarrow{\text{rösten}} \gamma a^r + \varepsilon a = (\gamma - \gamma a)^r \Rightarrow \forall a^r - \gamma a + \varepsilon = 0 \rightarrow a = \frac{\gamma \pm \sqrt{\gamma^2 - 4\varepsilon}}{2(\gamma)}$$

②

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

ریشه این قبول نیست $\frac{0}{0}$ می شود

$$2\sqrt{x+1} = x-10 \Rightarrow x(x+1) = x^2 - 20x + 100 \Rightarrow x^2 - 26x + 99 = 0 \rightarrow \Delta = (-26)^2 - 4 \cdot 1 \cdot 99 = 196 \Rightarrow$$

$$x = \frac{26 \pm \sqrt{196}}{2} = 13 \pm 7\sqrt{1}$$

جواب دادند $13 - 7\sqrt{1} \Rightarrow$ ~~منفی می شود~~ $\rightarrow 13 + 7\sqrt{1} \rightarrow 1$ ✓

2

$$\frac{r - \sqrt{r-k} - \sqrt{r-k} - r}{(r + \sqrt{r-k})(r - \sqrt{r-k})} = \frac{r-k}{\omega \sqrt{r-k}} \Rightarrow \frac{r-k}{\omega \sqrt{r-k}} = \frac{-r \sqrt{r-k}}{\varepsilon - (r-k)} \Rightarrow -10(r-k) = (r+k)(r-k)$$

$x = -12$ } $k \Gamma + 10k - 5\varepsilon$
 $\left. \begin{array}{l} x = -12 \\ x = r \end{array} \right\} \leftarrow \begin{array}{l} \text{محل جذر} \\ \text{محل جذر} \end{array}$

2

$$\frac{(1-k)^r + k^r}{x^r(1-x)^r} = \frac{14_0}{9} \Rightarrow \frac{r k^r + r k + 1}{(k-k^r)^r} = \frac{14_0}{9} \Rightarrow \frac{r(k^r - k) + 1}{(k^r - k)^r} = \frac{14_0}{9} \xrightarrow{k^r - k = t} \frac{r+1}{t^r} = \frac{14_0}{9} \Rightarrow 14_0 t^r - (r+1)t = 0$$

$$\Rightarrow t \begin{cases} t = \frac{r}{14} \rightarrow \frac{r}{14} = k^r - k \rightarrow k^r - k + \frac{r}{14} \xrightarrow{\Delta > 0} \delta = 1 \\ t = \frac{r}{10} \rightarrow \frac{r}{10} = k^r - k \rightarrow k^r - k - \frac{r}{10} \xrightarrow{\Delta > 0} \delta = 1 \end{cases} \quad \left. \vphantom{\begin{matrix} t = \frac{r}{14} \\ t = \frac{r}{10} \end{matrix}} \right\} 1+1=2 \quad \checkmark$$

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6

$$-x^5 + 4x - 1 \geq 0 \rightarrow r_5 x \leq 6 \rightarrow -x^5 + 5x^5 + 2\omega x - 1 \geq 0 \Rightarrow x^5(-x+5) + 2\omega(x-1) \geq 0$$

$$\begin{array}{c|c|c|c} -\omega & \varepsilon & \omega & \\ + & - & + & - \end{array} \rightarrow \varepsilon \leq x \leq \omega \xrightarrow{x=6} \sqrt{\varepsilon+5} + \sqrt{14+5} = \varepsilon+7$$

استقرار

↘ $k = \varepsilon \quad \checkmark$

$$(k-\varepsilon)(\omega-k^r) \geq 0$$

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7

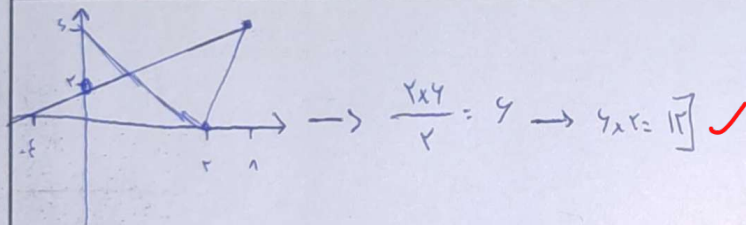
$$\begin{cases} x \leq -r \rightarrow y = -rx - r \rightarrow \frac{-x+r}{r} = -x-1 \Rightarrow y_k - r = 14 - k \Rightarrow k = -\varepsilon, y = v \rightarrow A(-\varepsilon, v) \\ x < 1 \rightarrow y = r \rightarrow \frac{14-k}{r} = r \Rightarrow 9 = 14 - k \Rightarrow k = 5 \rightarrow \text{در این بازه نیست} \end{cases}$$

$$\begin{cases} k \geq 1 \rightarrow y = rk + 1 \rightarrow \frac{14-k}{r} = rk + 1 \Rightarrow 9k + 3 = k + 14 \Rightarrow k = 2, y = \omega \rightarrow B(2, \omega) \end{cases}$$

$$AB \rightarrow \sqrt{(\Delta x)^2 + (\Delta y)^2} \rightarrow \sqrt{\varepsilon + 36} = r\sqrt{10} \quad \checkmark$$

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8



$$\sqrt{k^r - \varepsilon k + \varepsilon} = |k - r|$$

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9

$$\frac{1}{k} + \frac{1}{k+9} = \frac{1}{r_0} \Rightarrow r_0(k+9) + r_0 k = k(k+9) = r_0 k + 14_0 + r_0 k = k^2 + 9k \Rightarrow k^2 - 14k - 14_0 = 0$$

↓
فرصت

$$\Rightarrow (k+\omega)(k-34) = 0 \Rightarrow k = 34 \quad \checkmark$$

↓
جواب

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