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S_1

$\xrightarrow[\text{ملائی}]{\text{تبدیل به ستمایل}}$

$\frac{\omega + z}{\varepsilon} = \frac{\sqrt{\omega} + 1}{2} \Rightarrow \omega + z = 2\sqrt{\omega} + 2 \Rightarrow z = 2\sqrt{\omega} + (-2) = 2\sqrt{\omega} - 2$
 $2\sqrt{\omega} - 2 + \omega = 2\sqrt{\omega} + 2$

$\frac{S_2}{S_1} = \frac{\varepsilon(2\sqrt{\omega} + 2)}{\varepsilon \times \omega} = \frac{2\sqrt{\omega} + 2}{\omega}$

S_2

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$z^2 + y^2 = z^2 \Rightarrow z^2 + y^2 = \left(\frac{1+\sqrt{\omega}}{\varepsilon}\right) z^2 \Rightarrow z^2 + y^2 = \left(\frac{2+\sqrt{\omega}}{2}\right) z^2$
 $\frac{z}{z} = \frac{1+\sqrt{\omega}}{2} \Rightarrow 2z = z + \sqrt{\omega} z \Rightarrow z = \left(\frac{1+\sqrt{\omega}}{2}\right) z$
 $\frac{2\sqrt{\omega}-2}{2} \times \frac{x\sqrt{\omega}-1}{x\sqrt{\omega}-1} \times \frac{z^2}{y^2} = \frac{2}{1+\sqrt{\omega}} \Rightarrow \frac{z^2}{y^2} = \frac{\sqrt{\omega}-1}{2}$

$y^2 = \frac{1+\sqrt{\omega}}{2} z^2$
 $\frac{z^2}{y^2} = \frac{1}{\frac{1+\sqrt{\omega}}{2}}$

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$$3a + \sqrt{2a^2 + \varepsilon a} = 2 \Rightarrow \sqrt{2a^2 + \varepsilon a} = 2 - 3a \Rightarrow 2a^2 + \varepsilon a = 9a^2 - 12a + 4$$

$$\Rightarrow 7a^2 - 10a + \varepsilon = 0 \Rightarrow (7a - 2)(a - 2) = 0 \Rightarrow a = \frac{2}{7} \text{ or } a = 2$$

$$2 - 3a \geq 0 \Rightarrow 2 \geq 3a \Rightarrow \frac{2}{3} \geq a \rightarrow a = 2 \text{ is not valid}$$

$$\frac{a+1}{a} = \frac{\frac{2}{7}+1}{\frac{2}{7}} = \frac{\frac{9}{7}}{\frac{2}{7}} = \frac{9}{2} = \varepsilon$$

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$$\frac{\sqrt{n+1}}{\sqrt{2-1}+3} - \frac{\sqrt{n+1}}{\sqrt{2-1}+3} = \frac{n-1}{\sqrt{n-1}}$$

حذف کسری تعریف نشده $\Rightarrow n+1 > 0 \Rightarrow n > -1$ $n-1 > 0 \Rightarrow n > 1$

$$\sqrt{n-1} + 3 \neq 0 \Rightarrow \sqrt{n-1} \neq -3 \Rightarrow n-1 \neq 9 \Rightarrow n \neq 10$$

$$\sqrt{n-1} \neq 0 \Rightarrow n \neq 1 \Rightarrow D = (1, 10) \cup (10, +\infty)$$

$$\sqrt{n-1} = + \Rightarrow \frac{\sqrt{t^2+2}}{t+3} - \frac{\sqrt{t^2+2}}{3-t} = \frac{t}{t} \Rightarrow \sqrt{t^2+2} \left(\frac{1}{t+3} - \frac{1}{3-t} \right) = 1$$

$$\Rightarrow \sqrt{t^2+2} \left(\frac{-2}{9-t^2} \right) = 1 \Rightarrow \sqrt{t^2+2} \left(\frac{-2}{9-t^2} \right) = 1 \Rightarrow \frac{-2\sqrt{t^2+2}}{9-t^2} = 1 \Rightarrow -2\sqrt{t^2+2} = 9-t^2$$

$$\Rightarrow t^2 - 9 = 2\sqrt{t^2+2} \xrightarrow{\text{مربعین به توان ۲}} t^4 - 18t^2 + 81 = 4t^2 + 8 \Rightarrow t^4 - 22t^2 + 73 = 0 \xrightarrow{t^2 = z} z^2 - 22z + 73 = 0$$

$$\Rightarrow z = \frac{22 \pm \sqrt{(-22)^2 - 4 \times 73}}{2} \Rightarrow z = \frac{22 \pm 18\sqrt{3}}{2} \Rightarrow z_1 = 11 + 9\sqrt{3}$$

$$z_2 = 11 - 9\sqrt{3}$$

$$\frac{z}{t^2} = z - 1 \Rightarrow z_1 = 11 + 9\sqrt{3} \rightarrow \text{هر دو ریشه مثبت است}$$

$$z_2 = 11 - 9\sqrt{3} \rightarrow \text{دورینه}$$

جانب بازوهای تریگسترید $\Rightarrow Y = n \geq 0 \Rightarrow n \leq Y$

$$Y - \sqrt{Y^2 - 2x} \neq 0 \Rightarrow 2x \neq Y^2$$

$$D \Rightarrow n < Y, n \neq -Y$$

$$\Rightarrow -10 + 10x = x - 2x^2 \Rightarrow 2x^2 + 10x - 10 = 0 \Rightarrow (x+1)(x-1) = 0 \Rightarrow x = -1 \vee x = 1$$

ابن رستم + داند

$$\frac{1}{x^r} + \frac{1}{(1-x)^r} = \frac{1\%}{q} \rightarrow \frac{(1-x)^r + x^r}{x^r(1-x)^r} = \frac{1\%}{q} \Rightarrow \frac{x^r - x^r + 1}{(x - x^r)^r} = \frac{1\%}{q} \xrightarrow{x - x^r = t} \frac{1 - t}{t^r} = \frac{1\%}{q} \Rightarrow$$

$$140 + 11 + -9 = 0 \Rightarrow (140 + -9)(104 + 3) = 0 \Rightarrow \text{Ans} = \frac{104}{12}$$

$$\Delta = 1 - \frac{\gamma}{\varepsilon} = \frac{1}{\varepsilon} > 0$$

$$t_1 = x - x' = \frac{v}{c^2} \Rightarrow \frac{x'^2 - x^2 + \frac{v^2}{c^2}}{\Delta t} = 0 \Rightarrow \frac{c^2 \Delta t^2}{(\Delta t)^2} = \frac{-b}{a} = 1 \quad (+ \vee)$$

$$x^2 - 2x = \frac{-10}{10} \Rightarrow x^2 - 2x - \frac{10}{10} = 0 \Rightarrow \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} = \frac{-(-2) \pm \sqrt{(-2)^2 - 4(1)(-1)}}{2(1)} = \frac{2 \pm \sqrt{4 + 4}}{2} = \frac{2 \pm \sqrt{8}}{2} = \frac{2 \pm 2\sqrt{2}}{2} = 1 \pm \sqrt{2}$$

$$\sqrt{x + \sqrt{-x^2 + (x^2 + 1)x - 100}} + \sqrt{x^2 + \sqrt{-x^2 + 4x - 4}} = x + 1 \rightarrow x + 1 = x - 1$$

$$\frac{-n^2 + 4n - 1}{\Delta = 3^2 - 1 = 8} \geq 0 \Rightarrow 0 \geq n^2 - 4n + 1 \Rightarrow (n-2)(n-2) \leq 0$$

$$-x'' + \xi x' + \gamma \omega x - 100 \geq 0$$

$$\Rightarrow (x-\varepsilon)(x-\omega)(x+\omega) \leq 0 \Rightarrow \begin{array}{c|ccc} & -\omega & \varepsilon & \omega \\ \hline \text{PS}_0 & - & + & - \\ & \underbrace{\quad} & \underbrace{\quad} & \\ & \varepsilon^- & & \varepsilon^+ \end{array} \rightarrow \cap \Rightarrow D = \{\varepsilon\}$$

یک جواب دارد آن ۴ است

$$\sqrt{4} + \sqrt{14} = 6 \Rightarrow \sqrt{4}$$

جوابی ندارد

$$y = |x+4| + |x-1| \Rightarrow \text{تابع لافunzione}$$

$$\forall y+x=1V \Rightarrow y = \frac{-1}{\mu}x + \frac{1V}{\mu}$$

$$-Y_n - 1$$

$$\begin{aligned} -Yx - 1 &= \frac{-1}{Y}x + \frac{1}{Y} \Rightarrow \frac{-Y}{Y}x = \frac{Y-1}{Y} \Rightarrow -x = \frac{Y-1}{Y} \\ \Rightarrow x &= -\frac{Y-1}{Y}, y = Y \Rightarrow A(-\varepsilon, V) \end{aligned}$$

$$b_j \rightarrow \underbrace{r_{n+1}}$$

$$Y_2 + 1 = \frac{-1}{r} x + \frac{1V}{r} \Rightarrow \frac{V}{r} x = \frac{18}{r}$$

$$\Rightarrow x = r, y = 0 \Rightarrow B(r, 0)$$

فاصله بین دو نقطه = $\sqrt{(1-(-1))^2 + (0-1)^2} = \sqrt{4^2 + (-1)^2} = \sqrt{17} = 4.123$

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$$\text{جواب} = \frac{1}{1} \begin{vmatrix} 1 & 0 & 1 \\ 0 & 1 & 1 \\ 1 & 1 & 1 \end{vmatrix} = (1+0+0-1-1-0) \times \frac{1}{1} = 1$$

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