

$$\left(\frac{r(n-1)+1}{n(1-r)^r} = \frac{140}{9} \rightarrow \frac{r(2(n-1)+1)}{(n(2(n-1)))^r} = \frac{r}{2(n-1)} + \frac{1}{(n(2(n-1)))^r}$$

$$\frac{r}{t} + \frac{1}{t^r} = \frac{140}{9} \rightarrow \frac{rt+1}{t^r} = \frac{140}{9} \rightarrow 140t^r - 14t - 9 = 0$$

$$t = \frac{14 + \sqrt{14}}{440}$$

$$\left. \begin{array}{l} n^r - n - 0, r = 0 \rightarrow S = 1 \\ n^r - n + \frac{1}{14} = 0 \rightarrow S = 1 \end{array} \right\} 1+1=2$$

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

$$1) (-x + \varepsilon)(n - r) = 0 \rightarrow \begin{cases} n = +\varepsilon \\ x = r \end{cases}$$

$$D_1 = [r, \varepsilon]$$

$$D_{1,r} = r$$

$$2) - (x - \varepsilon)(n - a)(n + a) = 0 \rightarrow \begin{matrix} - & + & - & + & - \\ + & - & + & - & + \end{matrix} \rightarrow D_2 = (-\infty, -a] \cup [\varepsilon, a]$$

$$x = \varepsilon \rightarrow \sqrt{r+0} + \sqrt{14+0} = r + \varepsilon = 9 \Rightarrow$$

$$n = r + \varepsilon = 9$$

$$y = |n+r| + |n-1| \quad r y + n = 14$$

$$x < r \rightarrow -x - r - x + 1 = -\frac{x}{r} + \frac{14}{r} \rightarrow -rx + \frac{14}{r} = \frac{14}{r} + \frac{r}{r} \rightarrow -rx + \frac{14}{r} = \frac{14}{r} + \frac{r}{r} \rightarrow x = -\varepsilon \rightarrow y = \sqrt{r}$$

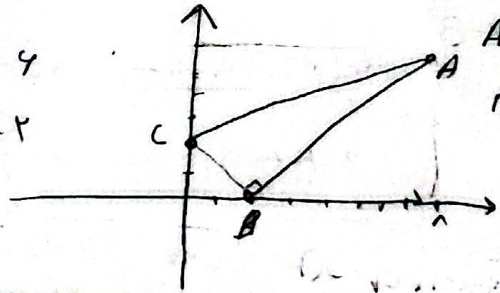
$$-r < x < 1 \rightarrow -x + r - x + 1 = -\frac{x}{r} + \frac{14}{r} \rightarrow -\frac{x}{r} = \frac{9}{r} - \frac{14}{r} \rightarrow -\frac{x}{r} = -\frac{5}{r} \rightarrow x = 5 \times \frac{r}{5} = r$$

$$x > 1 \rightarrow x + r + x - 1 = -\frac{x}{r} + \frac{14}{r} \rightarrow rx + \frac{14}{r} = \frac{14}{r} - \frac{r}{r} \rightarrow \frac{rx}{r} = \frac{14}{r} - \frac{r}{r} \rightarrow x = r - y = a$$

$$y = \sqrt{n^r - \varepsilon n + \varepsilon} = |n - r| \quad y = \frac{1}{r} x + r$$

$$\frac{1}{r} x + r = x - r \rightarrow x = 14 \rightarrow y = 9$$

$$\frac{1}{r} x + r = -x + r \rightarrow x = 0 \rightarrow y = r$$



$$AB = \sqrt{(r+\varepsilon)^r + (a-r)^r} = \sqrt{140}$$

$$AB = \sqrt{r^r + r^r} = r\sqrt{2}$$

$$BC = \sqrt{r^r + \varepsilon} = r\sqrt{r}$$

$$S = \frac{r\sqrt{2} \times r\sqrt{r}}{2} = 11 \frac{1}{2}$$

$$B = 140 = t$$

$$F = 140 = t + 9$$

$$\left. \begin{array}{l} B = 140 = t \\ F = 140 = t + 9 \end{array} \right\} \text{pol. b' } S = 140$$

$$\frac{1}{t} + \frac{1}{t-9} = \frac{1}{10} \rightarrow \frac{t+9}{t^2+9t} = \frac{1}{10} \rightarrow t^2 + 140 = t^2 + 9t$$

$$\rightarrow t^2 - 9t - 140 = 0 \rightarrow (t - 14)(t + 10) = 0 \rightarrow t = 14 \text{ or } t = -10$$

$$\Rightarrow \left. \begin{array}{l} 140 = 149 \\ 140 = 149 \end{array} \right\}$$

کریه از دست رفتن

تلف ۱۸

۱۹, ۷۵

ریشه های

$$\frac{U_1}{U_2} = \frac{5}{8} \rightarrow \frac{5 \cdot x}{8} = \frac{1 + \sqrt{5}}{2}$$

$$\frac{S_1}{S_2} = \frac{1 + \sqrt{5}}{2} = \frac{\sqrt{5} + 1}{2}$$

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$$10 + 2x = 8 + 6\sqrt{5} \Rightarrow x = 3\sqrt{5} - 1$$

$$x + 5 = 3\sqrt{5} - 1 + 5 = 3\sqrt{5} + 4$$

$$S_1 = 8 \cdot 5 = 40$$

$$S_2 = 8(2 + 3\sqrt{5}) = 16 + 24\sqrt{5}$$

$$\frac{U_1}{U_2} = \frac{1 + \sqrt{5}}{2}$$

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$$عرف = (1 + \sqrt{5})^2 - 8 = 1 + 2\sqrt{5} + 5 - 8 = 2\sqrt{5} - 2$$

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$$\left(\frac{U_1}{U_2}\right)^2 = \frac{4}{2\sqrt{5} - 2} \times \frac{\sqrt{5} - 1}{\sqrt{5} - 1} = \frac{4(\sqrt{5} - 1)}{2(5 - 4)} = \frac{2(\sqrt{5} - 1)}{1} = \sqrt{5} - 1$$

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$$\sqrt{2a^2 + 8a} = 2 - 3a \Rightarrow 2a^2 + 8a = 4 - 12a + 9a^2 \Rightarrow 7a^2 - 20a + 4 = 0$$

$$a^2 - 14a + 21 = 0$$

$$(a - 14)(a - 2) = 0 \Rightarrow \frac{14}{2} = 7 \text{ و } 2$$

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

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$$(\sqrt{x-1} + 3)(\sqrt{x+1}) - (\sqrt{x+1})(3 - \sqrt{x-1}) = \sqrt{x-1}(9 - x + 1)$$

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$$\rightarrow -2(\sqrt{x-1})(\sqrt{x+1}) = (\sqrt{x-1})(10 - x) \rightarrow -2\sqrt{x+1} = 10 - x \rightarrow 4x + 8 = 100 + x^2 - 20x$$

$$\textcircled{1} \sqrt{x-1} = 0 \rightarrow x = 1 \text{ غرض از اینجاست که خارج از مخرج نشود}$$

$$\rightarrow x^2 - 24x + 92 = 0 \begin{cases} \Delta > 0 \\ D > 0 \\ S > 0 \end{cases} \begin{cases} \text{ریشه ها} \\ \text{مجموع} \\ \text{ضرب} \end{cases}$$

۱. اگر x پس ۴-۱۲ غیر قابل قبول می باشد و تنها اوشه مثبت دارد

۲. ریشه ها

۱, ۷۵

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$$\frac{x}{\sqrt{2-x}} - \sqrt{2-x} - 2 = \frac{\sqrt{2-x}}{5}$$

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$$-2\sqrt{2-x} = \frac{\sqrt{2-x}}{5}$$

$$-10\sqrt{2-x} - \sqrt{2-x} = 0 \Rightarrow \frac{-11\sqrt{2-x}}{5} = 0$$

$$\sqrt{2-x} = 0 \rightarrow x = 2$$

مخرج، ریشه + ندارد

$x = 2$ غرض از اینجاست که خارج از مخرج نشود