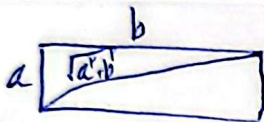


نسبت طلایی = $\frac{1+\sqrt{5}}{2}$ $S = 4 \times 5 = 20$
 $S = 4(1+2\sqrt{5}) = 4 + 8\sqrt{5}$
 $\epsilon = 4$
 $\epsilon \left(\frac{1+\sqrt{5}}{2} \right) = 2 + 2\sqrt{5}$

$$\frac{4+8\sqrt{5}}{20}$$



$$\frac{\sqrt{a^2+b^2}}{b} = \frac{1+\sqrt{5}}{2}$$

$$\sqrt{a^2+b^2} = b(1+\sqrt{5})$$

$4(a^2+b^2) = b^2 + 5b^2 + 2b^2\sqrt{5} \Rightarrow 4a^2 = 6b^2 + 2b^2\sqrt{5} \Rightarrow a^2 = \frac{3b^2(2+\sqrt{5})}{2}$
 $4(a^2+b^2) = b^2(6+2\sqrt{5}) \Rightarrow \frac{a^2+b^2}{b^2} = \frac{6+2\sqrt{5}}{4}$
 $\Rightarrow \frac{a^2}{b^2} + 1 = \frac{6+2\sqrt{5}}{4} \Rightarrow \frac{a^2}{b^2} = \frac{2+\sqrt{5}}{2}$

$$3a^2 - 2 = \sqrt{2a^2 + 4a} \quad (1) \quad 9a^2 - 12a + 4 = 2a^2 + 4a \Rightarrow 7a^2 - 16a + 4 = 0$$

$S = \frac{14}{\sqrt{2}} \quad \left. \begin{matrix} S = \frac{14}{\sqrt{2}} \\ P = \frac{4}{\sqrt{2}} \end{matrix} \right\} \Rightarrow \begin{matrix} x_1 = 2 \quad \times \\ x_2 = \frac{2}{\sqrt{2}} \quad \checkmark \end{matrix} \quad a = \frac{2}{\sqrt{2}} \Rightarrow \frac{a+1}{a} = \frac{\frac{2}{\sqrt{2}}+1}{\frac{2}{\sqrt{2}}} = \frac{2+\sqrt{2}}{2} = \frac{4}{2} = 2$

$$\frac{\sqrt{x+1}}{\sqrt{x-1}+2} - \frac{\sqrt{x+1}}{2-\sqrt{x-1}} = \frac{x-1}{\sqrt{x-1}} \xrightarrow{\text{منحصر به فرد}} \frac{(2-\sqrt{x-1})-(\sqrt{x-1}+2)}{(\sqrt{x-1}+2)(2-\sqrt{x-1})}$$

$= \frac{-2\sqrt{x+1}\sqrt{x-1}}{1-x} = \frac{x-1}{\sqrt{x-1}} \quad \begin{matrix} \rightarrow x_1 = 1 \quad \times \\ \rightarrow x_2 = 12+4\sqrt{2} \quad \checkmark \end{matrix}$

$$\frac{1}{\sqrt{2-x}+2} - \frac{1}{2-\sqrt{2-x}} = \frac{2-x}{\omega\sqrt{2-x}} \Rightarrow t = \sqrt{2-x}, \quad x < 2$$

$$\frac{1}{t+2} - \frac{1}{2-t} = \frac{t}{\omega}$$

$$\frac{t(12-t^2)}{\omega(t^2-4)} = 0 \Rightarrow -t+12t = \omega t^2 - 2$$

$t=0 \Rightarrow x=2$
 غرض منحصراً کند

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$$y = |x+2| + |x-1|$$

$$\begin{array}{c|c|c} -2 & 1 & \\ \hline -x-2-x+1 & x+2-x+1 & x+2+x-1 \\ \hline -2x-1 & 3 & 2x+1 \end{array}$$

$$\begin{array}{cc} (-2, 4) & (2, 0) \\ \sqrt{x^2+y^2} = \sqrt{4^2+2^2} = \sqrt{20} \end{array}$$

$$3y+x=14 \Rightarrow y = \frac{14-x}{3}$$

$$-2x-1 = \frac{14-x}{3} \Rightarrow -6x-3=14-x \Rightarrow -5x=17 \Rightarrow x = -\frac{17}{5}$$

$$\omega x = -2 \Rightarrow x = -2, y = 4$$

$$y=2 \Rightarrow 3y+x=14$$

$$4+x=14 \Rightarrow x=10$$

$$-2(x < 1)$$

$$\begin{array}{l} y=2x+1 \\ 3y=14-x \end{array} \Rightarrow x=2, y=5$$

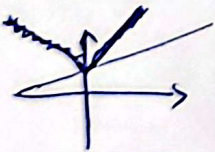
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$$y = \sqrt{x^2-4x+4} \quad , \quad y = \frac{1}{2}x+2$$

$$\downarrow$$

$$\sqrt{x^2-4x+4} = |x-2| \rightarrow \begin{array}{l} x \geq 2 \quad y = x-2 = \frac{1}{2}x+2 \Rightarrow x=4 \quad y=2 \\ x < 2 \quad y = 2-x = \frac{1}{2}x+2 \Rightarrow x=0 \quad y=2 \end{array}$$



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$$\frac{1}{x} + \frac{1}{x+9} = \frac{1}{5} \Rightarrow \frac{x+x+9}{x(x+9)} = \frac{1}{5} \Rightarrow \frac{2x+9}{x^2+9x} = \frac{1}{5}$$

$$\Rightarrow 5x+18 = x^2+9x \Rightarrow x^2-4x-18=0$$

$$\left. \begin{array}{l} S=11 \\ P=-18 \end{array} \right\} \Rightarrow \begin{array}{l} x_1=9 \\ x_2=-2 \end{array} \quad \text{QJL}$$

(34)

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