

$$\frac{x}{y} = \frac{1}{2} \Rightarrow x = \frac{y}{2} \quad \text{و} \quad \frac{x'}{y} = \frac{\sqrt{5}+1}{2} \Rightarrow x' = \frac{\sqrt{5}+1}{2} y$$

$$\frac{x'y}{xy} \rightarrow \frac{x'y}{x'y} = \frac{\frac{\sqrt{5}+1}{2} y}{\frac{y}{2}} = \frac{\sqrt{5}+1}{1} = \boxed{\sqrt{5}+1}$$

$$\frac{\sqrt{x^2+y^2}}{x} = \frac{1+\sqrt{5}}{2} \quad \text{نشان ۲} \quad \frac{x^2+y^2}{x^2} = \frac{1+\sqrt{5}}{2} \Rightarrow \frac{x^2+y^2}{x^2} = \frac{1+\sqrt{5}}{2} \Rightarrow x^2 + y^2 = x^2 + 2y^2$$

$$x^2(1+\sqrt{5}) = 2y^2 \Rightarrow \frac{x^2}{y^2} = \frac{2}{1+\sqrt{5}} = \frac{2}{\sqrt{5}-1}$$

$$\sqrt{2a^2+4a} = 2-2a \quad \text{با یک طرفه طرف بالا می شود} \quad 2a^2+4a = 4-8a+4a^2 \Rightarrow 2a^2-12a+4=0$$

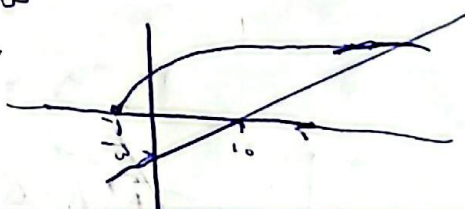
$$\Delta = 144-32 = 112 \Rightarrow \sqrt{112} = 4\sqrt{7} \Rightarrow a = \frac{12 \pm 4\sqrt{7}}{4} = 3 \pm \sqrt{7}$$

$$\frac{a+1}{a} = 1 + \frac{1}{a} \rightarrow \frac{1}{2} + \frac{1}{2} \rightarrow \boxed{\frac{3}{2}}$$

$$\frac{\sqrt{x+1}}{\sqrt{x-1}+3} + \frac{\sqrt{x+1}}{\sqrt{x-1}-3} = \frac{x-1-\sqrt{x-1}}{\sqrt{x-1}} \Rightarrow \frac{\sqrt{x-1}-x\sqrt{x+1}+\sqrt{x-1}+x\sqrt{x+1}}{x-10} = \sqrt{x-1}$$

$$\frac{2\sqrt{x-1}}{x-10} = \sqrt{x-1} \Rightarrow \sqrt{x+1} = \frac{x}{2} - 5$$

پس، شش



$$\frac{\sqrt{2-x}-x}{-x-2} + \frac{\sqrt{2-x}+x}{-x-2} = \frac{1}{5} \times \sqrt{2-x} \Rightarrow \frac{2\sqrt{2-x}}{-x-2} = \frac{\sqrt{2-x}}{5}$$

$$\Rightarrow -x-2=10 \Rightarrow x=-12 \quad \text{جواب نیست}$$

$$(x-1)^2 = (1-x)^2 \quad \frac{1}{x^2} + \frac{1}{(x^2-1)^2} = \frac{140}{9} \Rightarrow \frac{x^2-2x+1+x^2}{(x^2-x)^2} = \frac{140}{9} \Rightarrow \frac{2x^2-2x+1}{(x^2-x)^2} = \frac{140}{9}$$

$$\Rightarrow \frac{2(x^2-x)+1}{(x^2-x)^2} = \frac{140}{9} \Rightarrow \frac{2y+1}{y^2} = \frac{140}{9} \Rightarrow 140y^2 - 18y - 9 = 0$$

$$(y-48)(y+30) = 0 \Rightarrow y = \frac{30}{140} = \frac{3}{14} \quad \text{و} \quad y = \frac{48}{140} = \frac{12}{35}$$

$$\left. \begin{aligned} x^2-x+\frac{3}{14} &= 0 \quad \text{دست چپ} \\ x^2-x-\frac{3}{10} &= 0 \quad \text{دست راست} \end{aligned} \right\} 1+1 = \boxed{2}$$

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$$-x^2 + 2x - 1 \geq 0 \rightarrow x^2 - 2x + 1 \leq 0 \rightarrow (x-1)(x-1) \leq 0$$

$$\frac{1}{1-1} - \frac{1}{1-1} \rightarrow 1 \leq x \leq 1 \quad \boxed{I}$$

$$-x^2 + 4x^2 + 20x - 100 \geq 0 \rightarrow x^2 - 4x^2 - 20x + 100 \leq 0$$

$$x^2 - 20x - 4x^2 + 100 \leq 0 \rightarrow x(x^2 - 20) - 4(x^2 - 20) \leq 0$$

$$(x^2 - 20)(x - 4) \rightarrow \leq 0$$

$$\frac{20}{1-1} - \frac{4}{1-1} \rightarrow 4 \leq x \leq 20$$

$$x \leq -20$$

$$|n| \Rightarrow x = 4$$

جابانه اری در سکه دی آری

سین سادله این یو اب دارد

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

سین یک یار با $2x+1$ و یک یار با $-2x-1$
آن را بر ممراری دهم تا نقاط به دست آید

$$2x+1 = -\frac{1}{2}x + \frac{1}{2} \Rightarrow 4x+2 = -x+1 \Rightarrow \frac{1}{5} = x \Rightarrow x = \frac{1}{5}$$

$$-2x-1 = -\frac{1}{2}x + \frac{1}{2} \Rightarrow -4x-2 = -x+1 \Rightarrow -5 = x \Rightarrow x = -5$$

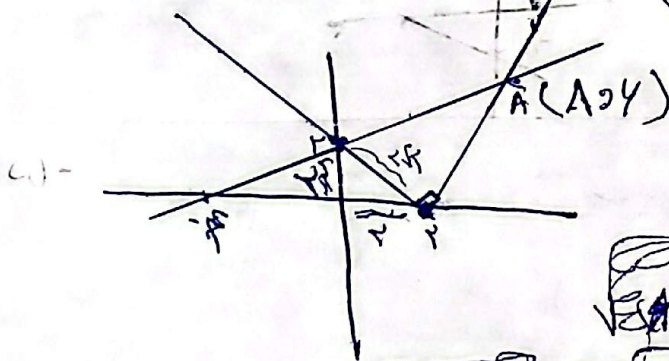
$$y = 0$$

$$AB = \sqrt{(2-(-5))^2 + (0-1)^2} = \sqrt{49+1} = \sqrt{50} = 5\sqrt{2}$$

-V

$$y = \sqrt{(x-2)^2} \Rightarrow y = |x-2|$$

$$x-2 = \frac{1}{2}x + 2 \Rightarrow x = 4 \quad y = 4$$



$$\sqrt{(4-2)^2 + (4-0)^2} = \sqrt{4+16} = \sqrt{20} = 2\sqrt{5}$$

$$A = \sqrt{(4-2)^2 + (4-0)^2} \Rightarrow 2\sqrt{5}$$

$$\sqrt{(x-2)^2 + y^2} = 12$$

$$x = 20 \quad x+9 = 29$$

$$\frac{1}{x} + \frac{1}{x+9} = \frac{1}{20} \Rightarrow \frac{2x+9}{x^2+9x} = \frac{1}{20} \Rightarrow 40x+180 = x^2+9x \Rightarrow x^2-31x-180=0$$

$$(x-36)(x+5)=0 \Rightarrow x=36$$

زمان $x = -5$
مغز نسبت