

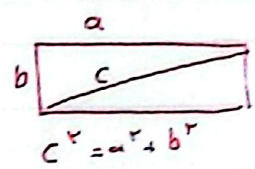
$$\frac{\sqrt{a} + 1}{2} = \frac{a + x}{2} \Rightarrow 1 + 2x = \sqrt{a} + 1$$

$$2x = \sqrt{a} - 4 \Rightarrow x = \frac{\sqrt{a} - 4}{2} \quad (2)$$

طول بيضی: $0 + 2\sqrt{a} - 4 = 2 + 2\sqrt{a} \Rightarrow \delta = (2 + 2\sqrt{a}) = 2(1 + \sqrt{a})$

بیضی: $2 \times a = 20$

$$\frac{\delta}{\text{بیضی}} = \frac{1 + 1\sqrt{a}}{20} = \frac{2 + 2\sqrt{a}}{20} \quad \checkmark$$



$(\frac{a}{b})^2 = ?$

$$\frac{\sqrt{a} + 1}{2} = \frac{c}{a}$$

(2)

$2c = a\sqrt{a} + a \quad a^2 + b^2 = \underline{\hspace{2cm}}$

$$c = \frac{a\sqrt{a} + a}{2}$$

$$\frac{\sqrt{a^2 + b^2}}{a^2} = \frac{\sqrt{a} + 1}{2} \Rightarrow \frac{a^2 + b^2}{a^2} = \frac{4 + 2\sqrt{a}}{2} \Rightarrow 1 + \frac{b^2}{a^2} = \frac{2 + \sqrt{a}}{1}$$

$$\frac{b^2}{a^2} = \frac{1 + \sqrt{a}}{2} \Rightarrow \frac{a^2}{b^2} = \frac{2}{1 + \sqrt{a}} \quad \checkmark$$

$a = \frac{2}{\sqrt{5}} \Rightarrow$

$$\frac{a+1}{a} = \frac{\frac{2}{\sqrt{5}} + 1}{\frac{2}{\sqrt{5}}} = \frac{2 + \sqrt{5}}{2} = \frac{2 + \sqrt{5}}{2} \quad \checkmark$$

① $\sqrt{ra^2 + 8a} = 2 - 3a$

$2a^2 + 8a = 4 + 9a^2 - 12a$

$\sqrt{a^2 - 14a + 8} = 0 \Rightarrow$ راسی

$a^2 - 14a + 8 = 0 \quad (a - 2)(a - 12)$

$a = \frac{2}{\sqrt{5}} \quad a = \frac{12}{\sqrt{5}} \Rightarrow 4 + \sqrt{1+1} \neq 2$
 راسی هم نمی شود

• dotnote

$$\frac{\sqrt{x+1}}{\sqrt{x+1} + 1} = \frac{\sqrt{x+1}}{x+1} = \frac{x+1}{\sqrt{x+1}} \quad \sqrt{x+1} = t$$

(2)

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

$t=0, x=1$
غلق

$$2\sqrt{t^2+1} = t \cdot 9 \Rightarrow (y_{12}) = (y_{19}) \Rightarrow$$

$$t^2, 9$$

$$y = 12$$

$$y^2 = 12y, y = 12$$

$$y = 11 \pm \sqrt{13} \Rightarrow$$

$$11 \pm \sqrt{13} = 12 \pm \sqrt{13}$$

اربعه مثبت

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$$\sqrt{2 \cdot x} = t$$

$$t^2 = 2 \cdot x$$

$$\frac{1}{t+1} - \frac{1}{1-t} = \frac{2-x}{1-t^2} \Rightarrow$$

خرج مشترك

(2)

$$10t - 10t^2 - 10t - 10t^2 = -10t^2 = 12 \cdot 2t^2 - (x + xt^2) \Rightarrow$$

$$-12t^2 - 12 = xt^2 - 12x$$

$$-12 + 12x - 12 = 12x - 24 = 2x - x^2 - 12x$$

$$x^2 + 10x - 24 = 0$$

$$(x+12)(x-2) = 0$$

$$x_1 = -12$$

$$x_2 = 2$$

خرج صفری نه غلق

$$x = -12 \Rightarrow$$

اربعه مثبت نه ارد

0



$$9(x-1)^2 + 9x^2 = 14 \cdot x^2 (x-1)^2$$

(۲)

$$9x^2 \cdot 18x + 9x^2 = 14 \cdot x^2 (x-1)^2$$

$$18x^3 - 18x + 9 = 14 \cdot x^2 - 28x^3 + 14x^2 \Rightarrow$$

$$14x^2 - 28x^3 + 18x^3 - 18x + 9 = 0$$

$$\delta = \frac{-b}{2a} = \frac{28}{14} = 2 \quad \checkmark \quad (2)$$

$$-x^3 + 8x^2 + 20x - 10 \geq 0$$

$$x^3 - 8x^2 - 20x + 10 \leq 0 \Rightarrow \{ \leq x \leq 10 \} \quad (1) \quad (2)$$

$$x^2 - 4x + 1 \leq 0 \Rightarrow (x-2)(x-2) \leq 0 \quad 2 \leq x \leq 2 \quad (2)$$

$$(1) \cap (2) \Rightarrow x = \{ \sqrt{4} + \sqrt{14} = 2 + 2 = 4 \}$$

پس یک جواب دارد $x = 4 \quad \checkmark$

(1) و (2) و (3)

$$\sqrt{(x+1)^2 + (0-1)^2} = \sqrt{2} \quad \boxed{= 2\sqrt{1}}$$

$2\sqrt{1} = 2 \quad \checkmark$

(۲)

$$(x+2) + (x-1) = 2x+1 \Rightarrow 3(2x+1) + x = 17 \Rightarrow 6x+3+x=17 \Rightarrow 7x=14 \Rightarrow x=2$$

$$(3) \quad -2 \leq x \leq 1 \Rightarrow y = (x+2) - (1-x) = 3 \quad 9 + x = 17$$

توابع همنیست

$(2, 9)$

$\hookrightarrow$

$$(3) \quad x \leq -2 \Rightarrow y = -(x+2) + (1-x) = -2x-1 \Rightarrow 3(-2x-1) + x = 17$$

$$y = -2(-1) - 1 = 1 \quad (-1, 1) \quad (2)$$

$$|x-2|$$

$$x \geq 2 \Rightarrow x-2 \Rightarrow \frac{1}{x-2} = x-2 \Rightarrow x-1$$

$$x < 2 \Rightarrow \frac{1}{2-x} = 2-x \Rightarrow x=0$$

$$\frac{2+4}{2} \times 1 = 6 \times 1 = 6 \quad (1)$$

$$2 \leq 0$$

$$2: \text{مقام}$$

$$\Rightarrow 2 \times 2 \times \frac{1}{2} = 2$$

$$1 \leq 2$$

$$402: 6$$

$$6: \text{مقام}$$

$$\Rightarrow 4 \times 4 \times \frac{1}{4} = 4$$

$$\Rightarrow 1+2=3 \quad (2)$$

$$(1) - (2) = 6 - 3 = 3 \quad \checkmark$$

$$\frac{1}{B} + \frac{1}{F} = \frac{1}{r} \Rightarrow \frac{1}{B} + \frac{1}{B+9} = \frac{1}{r} \Rightarrow \frac{2B+9}{B^2+9B} = \frac{1}{r} \Rightarrow$$

$$r \cdot B + 11 = B^2 + 9B \Rightarrow B^2 - 31B - 11 = 0$$

$$B = \frac{31 \pm \sqrt{11}}{2} \Rightarrow \frac{31 + \sqrt{11}}{2} = 34 \quad \checkmark$$

به تنهایی اینجا می دهد