

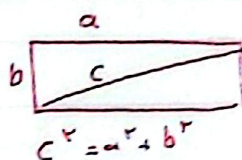
$$\frac{\sqrt{a} + 1}{2} = \frac{a + x}{2} \Rightarrow 1 + 2x = \sqrt{a} + 1$$

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

$$\text{طول وتر: } 0 + \sqrt{a} - 1 = \sqrt{a} - 1 \Rightarrow \sqrt{a} - 1$$

$$\text{مساحة: } \frac{1}{2} \times a = \frac{a}{2}$$

$$\frac{\text{مساحة}}{\text{طول وتر}} = \frac{\frac{a}{2}}{\sqrt{a} - 1} = \frac{a}{2(\sqrt{a} - 1)}$$



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

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

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

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

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

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

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

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

$$\frac{a+1}{a} = \frac{9}{\sqrt{a}} = \frac{9}{2} \Rightarrow \boxed{a=4}$$

$$\sqrt{a^2 + 1} = 2 + \sqrt{a}$$

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

$$a^2 - 2a + 1 = 0 \Rightarrow (a-1)^2 = 0 \Rightarrow a=1$$

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$$a = \frac{2}{\sqrt{a}} \Rightarrow a^2 = \frac{2}{\sqrt{a}} \Rightarrow a^3 = 2 \Rightarrow a = \sqrt[3]{2}$$

• dotnote

نقطه

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

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

$$t=0 \Rightarrow x=1 \quad \sqrt{t^2+2} = t \cdot 9 \Rightarrow (y, x) = (y, 1) \Rightarrow$$

$$t^2, 9$$

$$y = 12$$

$$y^2 - 2y + 1 = 0$$

$$y = 1 \pm \sqrt{1} \Rightarrow$$

$$y = 1 \pm 1 = 0 \text{ or } 2$$

اربعه مثبت

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

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

$$\frac{1}{t+2} - \frac{1}{2-t} = \frac{2-x}{9t} \Rightarrow$$

خرج مشترك

$$10t - 9t^2 - 10t - 9t^2 = -10t^2 = 18 \cdot 2t^2 - (x + x + t^2) \Rightarrow$$

$$-18t^2 - 18 = x + t^2 - 4x$$

$$-18 + 18x - 18 = 18x - 36 = 2x - x^2 - 4x$$

$$x^2 + 10x - 36 = 0$$

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

$$x_1 = -12$$

$$x_2 = 2 \Rightarrow \text{خرج صریح}$$

$$x = -12 \Rightarrow$$

اربعه مثبت نه دارد

0



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

-4

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

$$18x^3 - 18x + 9 = 14 \cdot x^4 - 28x^3 + 14x^2 \Rightarrow$$

$$14x^4 - 28x^3 + 14x^2 - 18x + 9 = 0$$

$$\delta = \frac{-b}{2a} = \frac{28}{14} = 2$$

2

-V

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

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

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

(1) \cap (2)

$$\Rightarrow x = \{ \sqrt{4} + \sqrt{14} = 2 + \sqrt{14} = 4 \}$$

$$x = 4$$

پس يك جواب دارم

(1) \cap (2)

$$\sqrt{(x+1)^2 + (0-1)^2} = \sqrt{40} = 2\sqrt{10}$$

2\sqrt{10} - V

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

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

تو با هم نیست

(2, 9)

$$x=2$$

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

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

dotnote

$$|x-2|$$

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

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

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

$$2 \leq 0$$

$$2: \text{مقام}$$

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

$$1 \leq 2$$

$$402: 6$$

$$6: \text{مقام}$$

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

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

$$(1) - (2) = 6 - 3 = 3$$

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

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

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

کجه تنهائی انجاری دکر