

DATE :

SUBJECT :

کلاس: دهم ریاضی اول

تاریخ: ۱۸

نام و نام خانوادگی: ...

$$\frac{x}{4} = \frac{\sqrt{5}+1}{2} \rightarrow x = 2\sqrt{5}+2 \quad -1$$

$$\text{نسبت مساوی} = \frac{4 \times (2\sqrt{5}+2)}{4 \times 4} = \frac{2(\sqrt{5}+1)}{4}$$

$$\frac{\text{سطح}}{\text{سطح}} = \frac{1+\sqrt{5}}{2} \quad -2$$

$$\text{عرض} = (1+\sqrt{5})^2 \cdot 4 = 1 + 2\sqrt{5} + 5 = 2\sqrt{5}+2$$

$$\left(\frac{16}{9}\right)^2 = \frac{4}{2\sqrt{5}+2} = \frac{2\sqrt{5}-2}{2\sqrt{5}+2} = \frac{1\sqrt{5}-1}{1\sqrt{5}+1} = \frac{\sqrt{5}-1}{2}$$

$$\sqrt{2a^2+4a} = 2-3a \rightarrow 2a^2+4a = 4+9a^2-12a \rightarrow 7a^2-14a+4=0 \quad -3$$

$$\rightarrow a^2-14a+4=0 \rightarrow (a-14)(a-2)=0 \rightarrow a=14 \text{ یا } a=2$$

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

$$(\sqrt{x-1}+3)(\sqrt{x+1}) - (\sqrt{x+1})(3-\sqrt{x-1}) = \sqrt{x-1}(9-x+1) \quad -4$$

$$\rightarrow 2(\sqrt{x-1})(\sqrt{x+1}) = (\sqrt{x-1})(1-x) \rightarrow -2\sqrt{x+1} = 1-x$$

$$\rightarrow 14x+4=0 \rightarrow x^2-14x+4=0 \rightarrow x^2-14x+49=0 \rightarrow (x-7)^2=0 \rightarrow x=7$$

$$\sqrt{x-1} = 0 \rightarrow x=1 \text{ یا } x=7$$

$$2-\sqrt{2-x} = \sqrt{2-x} \rightarrow 2 = 2\sqrt{2-x} \rightarrow \sqrt{2-x} = 1 \quad -5$$

$$-2\sqrt{2-x} = \frac{\sqrt{2-x}}{1} \rightarrow -1\sqrt{2-x} = \sqrt{2-x} \rightarrow -1\sqrt{2-x} = 0 \rightarrow x=2$$

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

صیغه یکتا ندارد

$$\frac{r^2 - r + 1}{r^2(1-r)^2} = \frac{14}{9} \rightarrow \frac{r(2(r-1) + \frac{1}{r})}{(r(r-1))^2} = \frac{r}{r(r-1)} + \frac{1}{(r(r-1))^2}$$

$$\frac{r}{r} + \frac{1}{r^2} = \frac{14}{9} \rightarrow \frac{r^2 + 1}{r^2} = \frac{14}{9} \rightarrow 14r^2 - 11r - 9 = 0$$

$$r = \frac{11 \pm \sqrt{11^2 + 4 \cdot 14 \cdot 9}}{2 \cdot 14} \quad \left\{ \begin{array}{l} \frac{r}{1} \\ -\frac{9}{14} \end{array} \right.$$

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

$$\sqrt{x + \sqrt{-x^2 + 6x + 11}} + \sqrt{x^2 + \sqrt{-x^2 + 4x - 1}} = x + 1$$

$$\left. \begin{array}{l} 1) (x+6)(x-2) = 0 \rightarrow \begin{array}{l} x=6 \\ x=2 \end{array} \quad D_1 = [2, 6] \\ 2) - (x-6)(x-4)(x+4) \geq 0 \rightarrow \frac{-4 \cdot 6 \cdot 4}{+(-) +} \rightarrow D_2 = (-\infty, -4] \cup [6, 4] \end{array} \right\} D_{1,2} = \emptyset$$

$$x=6 \rightarrow \sqrt{6+0} + \sqrt{17+0} = 2+6=8 \rightarrow x=6 \text{ is a solution}$$

$$y = |x+2| + |x-1|, \quad 3y + x = 14$$

$$x \leq -2 \rightarrow -x-2-x+1 = \frac{x}{2} + \frac{14}{3} \rightarrow -2x - 1 = \frac{14}{3} + \frac{x}{3} \rightarrow \frac{4x}{3} = \frac{17}{3} \rightarrow x = -\frac{17}{4}, y = \frac{17}{4}$$

$$-2 < x < -1 \rightarrow -x+2-x+1 = \frac{-x}{2} + \frac{14}{3} \rightarrow -\frac{x}{2} = \frac{14}{3} - \frac{1}{x} \rightarrow -\frac{x}{2} = \frac{14}{3} - \frac{1}{x} \rightarrow x = 1 \quad \times$$

$$x \geq -1 \rightarrow -x+2+x-1 = \frac{-x}{2} + \frac{14}{3} \rightarrow 2x + \frac{x}{2} = \frac{14}{3} - \frac{1}{2} \rightarrow \frac{5x}{2} = \frac{25}{6} \rightarrow x = 2, y = 4$$

$$AB = \sqrt{(2+6)^2 + (4-1)^2} = \sqrt{65}$$

$$y \leq \sqrt{x^2 - 4x + 6} = |x-2| \quad y = \frac{1}{2}x + 2$$

$$\frac{1}{2}x + 2 = x - 2 \rightarrow x = 4, y = 4$$

$$\frac{1}{2}x + 2 = -x + 2 \rightarrow x = 0 \rightarrow y = 2$$

$$AB = \sqrt{2^2 + 4^2} = \sqrt{20}$$

$$BC = \sqrt{2^2 + 0} = 2$$

$$S = \frac{4\sqrt{20} \times 2\sqrt{2}}{2} = 16$$

$$\left. \begin{array}{l} B = 30^\circ = 6 \\ F = 40^\circ = 8 \end{array} \right\} \text{result} = 24$$

$$\frac{1}{t} + \frac{1}{t-9} = \frac{1}{r} \rightarrow \frac{r^2 + 9}{t^2 + 9t} = \frac{1}{r} \rightarrow 8 \cdot t + 11 = t^2 + 9t$$

$$\rightarrow t^2 - r^2 + 11 = 0 \rightarrow (t-3)(t+4) = 0 \quad \left\{ \begin{array}{l} r = t \checkmark \\ t = -4 \times \end{array} \right. \quad \left. \begin{array}{l} 20 = 17 \\ 16 = 17 \end{array} \right.$$