

آیڈیو کریسی یا ز دھم دفتر ب کالیف

Date _____

Subject _____

$$\frac{1 + \sqrt{a}}{r}$$

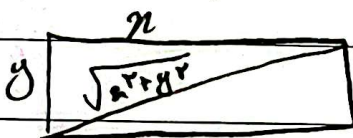
$$r \quad a + d = n$$

①

$$\frac{n}{r} = \frac{\sqrt{a} + 1}{r} \Rightarrow n = r\sqrt{a} + r$$

$$\text{نسبت} = \frac{r \times (r\sqrt{a} + r)}{r \times a} = \frac{r(\sqrt{a} + 1)}{a}$$

$$\Rightarrow \frac{r}{10} a(\sqrt{a} + 1) = 0/r(\sqrt{a} + 1)$$



$$\frac{\sqrt{n^2 + y^2}}{n} = \frac{\sqrt{a} + 1}{r}$$

②

$$(\quad)^r \Rightarrow \frac{n^2 + y^2}{n^2} = \frac{a + 1 + r\sqrt{a}}{r} = \frac{r + \sqrt{a}}{r}$$

$$\frac{n^2}{n^2} + \frac{y^2}{n^2} = 1 + \frac{1 + \sqrt{a}}{r} \quad \left(\frac{y}{n}\right)^r = \frac{\sqrt{a} + 1}{r}$$

$$\rightarrow \frac{n^2}{y^2} = \frac{r}{\sqrt{a} + 1}$$

③

$$ra + \sqrt{ra^2 + ca} = r \quad \frac{a+1}{a} = ?$$

$$\sqrt{ra^2 + ca} \rightarrow ra^2 + ca \gg \frac{-r}{+1} \quad \frac{0}{-1}$$

$$\sqrt{ra^2 + ca} = r - ra \quad (\quad)^r \rightarrow$$

$$ra^2 + ca = ra^2 - 1ca + r \rightarrow \sqrt{ra^2 - 1ca + r} = 0$$

$$a = r, \quad \frac{r}{r} = \frac{\frac{r}{r} + 1}{\frac{r}{r}} = \frac{1}{\frac{r}{r}} = \frac{1}{r} = r/a$$

$$\sqrt{r(a)^2} = \frac{r - y}{-r} \times \sqrt{r(\frac{r}{r})^2 + \frac{1}{r}} = \frac{1r - r}{r} = \frac{1}{r} \checkmark$$

$$\frac{\sqrt{x+1}}{\sqrt{x-1}+r} - \frac{\sqrt{x+1}}{r-\sqrt{x-1}} = \frac{x-1}{\sqrt{x-1}} \quad (1)$$

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

$$10 - x$$

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

$$x \neq 10, 1$$

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

(2)

$$\frac{1}{\sqrt{r-x}+r} - \frac{1}{r-\sqrt{r-x}} = \frac{r-x}{a\sqrt{r-x}}$$

$$\frac{r-\sqrt{r-x}-r-\sqrt{r-x}}{r-(r-x)} = \frac{r-x}{a\sqrt{r-x}} \rightarrow \sqrt{r-x} = t$$

$$\frac{-2t}{r-t^2} = \frac{t^r}{at} \Rightarrow -10 = r-t^2 \quad t^2-10=0$$

$$t = \sqrt{10}$$

$$\sqrt{r-x} = \sqrt{10} \rightarrow r-x=10 \rightarrow x=-10 \rightarrow \text{value is } -10$$

(3)

$$\frac{1}{x^r} + \frac{1}{(1-x)^r} = \frac{19}{9}$$

$$\frac{x^r + (1-x)^r}{x^r(1-x)^r} = \frac{19}{9}$$

$$x = \frac{r}{r} \quad 1-x = \frac{r}{r}$$

$$\frac{r}{r} + \frac{r}{r} = \frac{9+r}{1r} = \frac{1r}{1r} = 1$$

$$\sqrt{x + \sqrt{-x^2 + rx + r^2 - 1}} + \sqrt{x \sqrt{-x^2 + rx - 1}} \leq x + r$$

$x = r \rightarrow 0$ $x = r \rightarrow 0$

$$\sqrt{r} + \sqrt{(r)^2} \leq r + r \rightarrow r + r \leq 4$$

یک جواب

$$x, r - r \leq x < 1 \quad | \quad x, r + 1$$

$-x - r - x + 1$	$x + r - x + 1$	$x + r + x - 1$
$= -2x - 1$	$= r$	$2x + 1$

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

$$\sqrt{x} = \sqrt{r} \Rightarrow x = r$$

$$-2x - 1 = \frac{1}{r} \sqrt{1-x} \rightarrow -4x - r = \sqrt{1-x} \quad \& \quad x = r, \quad x = r$$

$$y = \frac{1}{r} x + r$$

$$y = \sqrt{x^2 - rx + r^2}$$

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

$$|x-r| = \frac{x}{r} + r$$

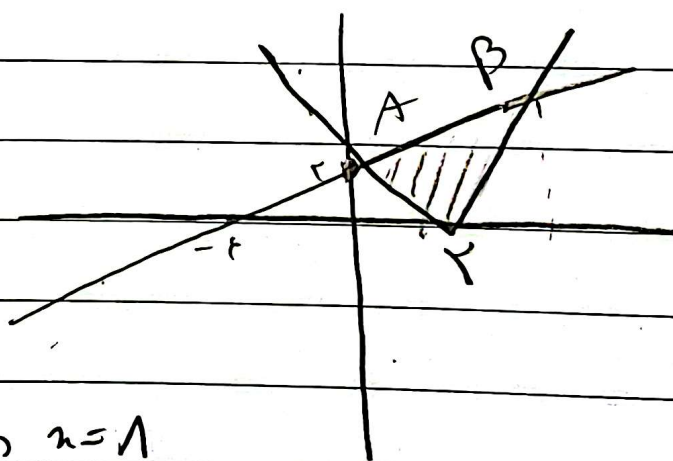
$$x-r = \frac{x}{r} + r \rightarrow \frac{x}{r} = r \rightarrow x = r$$

$$-x+r = \frac{x}{r} + r \rightarrow x = 0 \quad A(0,0)$$

$$B(r, r)$$

$$d_{AB} = \sqrt{(r-0)^2 + (r-0)^2} = r\sqrt{2}$$

$$S = \frac{r\sqrt{2} \times r\sqrt{2}}{r} = r$$



$$\text{کهریز} = x \quad \text{فرهاد} = x + 1$$

10

$$\frac{1}{x} + \frac{1}{x+1} = \frac{1}{20} \rightarrow \frac{x+1+x}{x(x+1)} = \frac{1}{20}$$

$$20(x+1) = x^2 + x \quad x^2 - 19x - 20 = 0$$

$$(x+20)(x-19) = 0 \rightarrow x = -20 \text{ یا } x = 19 \quad \boxed{x = 19}$$