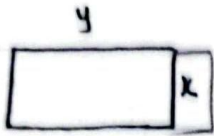


تلف 18

19,75

المجموع مائتين



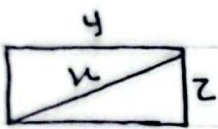
$$\frac{y}{x} = \frac{\delta}{\varepsilon}$$

$$\frac{S'}{S}$$

$$\frac{S'}{S} = \frac{r(\sqrt{\delta}+1) \times \varepsilon}{\delta \times \varepsilon} = 0,8(\sqrt{\delta}+1)$$

$$\varepsilon \times \frac{\sqrt{\delta}+1}{r} = r(\sqrt{\delta}+1)$$

(2)



$$\frac{x}{y} \rightarrow \text{طول}$$

$$\frac{y^r}{z^r}$$

$$x = \sqrt{y^r + z^r} \rightarrow \frac{\sqrt{y^r + z^r}}{y} = \frac{\sqrt{\delta} + 1}{r} \rightarrow \frac{y^r + z^r}{y^2} = \frac{\delta + 1}{r^2}$$

$$\frac{z^r}{y^r} + 1 = \frac{\delta + 1}{r^2} \rightarrow \frac{z^r}{y^r} = \frac{1 + \delta}{r^2} \rightarrow \frac{y^r}{z^r} = \frac{r^2}{1 + \delta}$$

.2

(2)

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

.3

$$\sqrt{ra^r + \varepsilon a} = r - ra \rightarrow ra^r + \varepsilon a = r^2 - 2ra + a^2 \rightarrow ra^r - 19a + \varepsilon = 0$$

(2)

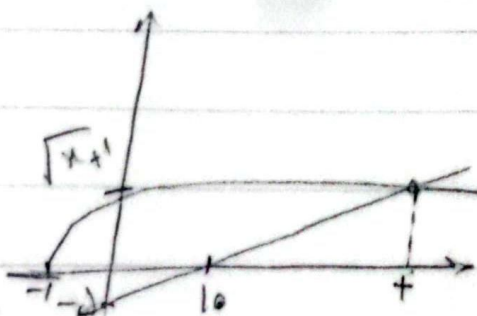
$$\frac{a+1}{a} = \frac{\frac{a}{r}}{\frac{r}{r}} = \frac{a}{r} = \varepsilon, d$$

$$\sqrt{ra^r - 19a + 1} = 0 \rightarrow a = \frac{r}{x}, \frac{r}{v}$$

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

.4

$$\rightarrow \frac{4\sqrt{x+1} - \sqrt{x+1}\sqrt{x-1} - 4\sqrt{x+1} - \sqrt{x+1}\sqrt{x-1}}{9 - (x-1)} \rightarrow -2\sqrt{x+1} = 10 - x$$



تلف 18

(2)

DAT

اصول ماریتی

$x = -12$ ریشه منفی است پس معادله هیچ ریشه مثبت ندارد

$$\frac{1}{\sqrt{2-n}+2} - \frac{1}{2-\sqrt{2-n}} = \frac{2-n}{\omega\sqrt{2-n}}$$

$n = -12$
 $\Rightarrow \{x, -12\} \rightarrow$ ریشه منفی

5

1, 10

$$\frac{2-\sqrt{2-n}-2-\sqrt{2-n}}{2-(2-n)} = \frac{-2\sqrt{2-n}}{2+n} = \frac{\sqrt{2-n}}{\omega} \rightarrow -10 = 2+n$$

$$\frac{1}{n^2} + \frac{1}{(1-n)^2} = \frac{140}{9} \rightarrow \frac{(n-1)^2 + n^2}{(n^2-n)^2} = \frac{140}{9} \rightarrow \frac{2n^2-2n+1}{n^4-2n^3+n^2} = \frac{140}{9}$$

$$\frac{2n^2-2n+1}{n^4-2n^3+n^2} = \frac{140}{9} \rightarrow \frac{2n^2-2n+1}{n^2} = \frac{140}{9} \rightarrow \frac{2n^2-2n+1}{n^2} = \frac{140}{9}$$

$$\frac{t+1}{t} = \pm \frac{14}{9} \rightarrow t = \frac{9}{14} \text{ or } t = -\frac{9}{14}$$

$n^2-n = \frac{9}{10} \rightarrow S=1$
 $n^2-n = -\frac{14}{14} \rightarrow S=1$

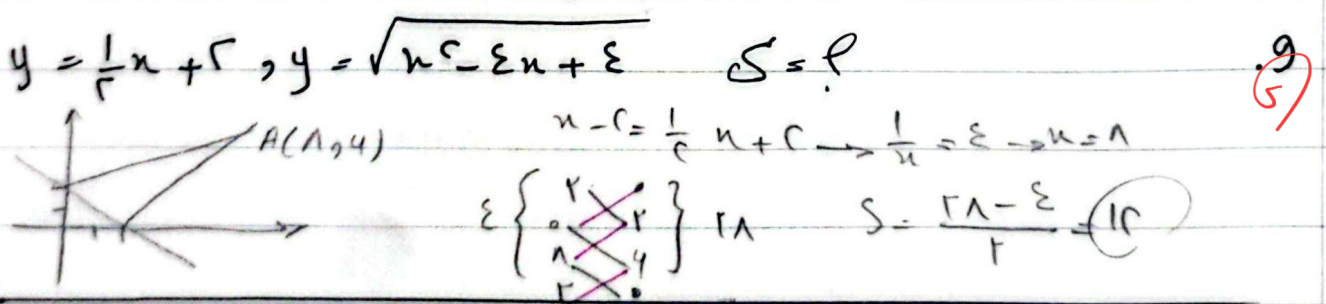
$$-n^2+4n-1 \geq 0 \rightarrow (n-2)(-n+2) \geq 0 \rightarrow \frac{2}{-1+1} = - \rightarrow 2 \leq n \leq 2$$

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

$\{x\}$ است

$$y = |n+2| + |n-1| \quad y+n=14 \quad A \times B \quad AB = ?$$

$|AB| = \sqrt{4^2+2^2} = 2\sqrt{5}$



10. $9h_{\text{son}} + 5h_{\text{father}} = 10h$

$\frac{1}{n-9} + \frac{1}{n} = \frac{1}{50} \rightarrow \frac{n+n-9}{n^2-9n} = \frac{1}{50} \rightarrow n^2-9n = 50n-180$

$n^2-59n+180=0 \rightarrow n=9 \text{ or } n=20$

$n=9$ is not valid because it would make the denominator zero in the original equation.

$n=20$ is the solution.