

Subject:

Year:

Month:

Date:

تاریخ شماره ۱۸

یازدهم دشت

۲۰

سایه سید محمدی

$$n = \frac{\omega}{y} \quad \leadsto \quad \frac{n'}{y} = \frac{1 + \sqrt{\omega}}{r}$$

$$n = \frac{\omega y}{\varepsilon}$$

$$n' = \frac{1 + \sqrt{\omega} y}{r}$$

$$S = \frac{\omega}{\varepsilon} y \times y = \frac{\omega}{\varepsilon} y^2$$

$$S' = \frac{1 + \sqrt{\omega} y}{r} \times y = \frac{1 + \sqrt{\omega} y}{r}$$

$$\Rightarrow \frac{S'}{S} = \frac{1 + \sqrt{\omega} y}{\frac{\omega}{\varepsilon} y} = \frac{r + r\sqrt{\omega}}{\omega}$$

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

$$\frac{\sqrt{n^2 + y^2}}{n} = \frac{1 + \sqrt{\omega}}{r} \Rightarrow \frac{n^2 + y^2}{n^2} = \frac{1 + \omega + r\sqrt{\omega}}{\varepsilon}$$

$$\Rightarrow \varepsilon n^2 + \varepsilon y^2 = n^2 + \omega n^2 + r\sqrt{\omega} n^2 \Rightarrow \varepsilon y^2 = (r + r\sqrt{\omega}) n^2$$

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

$$\Rightarrow \frac{r}{1 + \sqrt{\omega}} \times \frac{1 - \sqrt{\omega}}{1 - \sqrt{\omega}} = \frac{r - r\sqrt{\omega}}{-\varepsilon} = \frac{\sqrt{\omega} - 1}{r}$$

$$\frac{a+1}{a} = \frac{\frac{r}{\sqrt{\omega}} + \frac{1}{\sqrt{\omega}}}{\frac{r}{\sqrt{\omega}}} = \frac{9}{\frac{r}{\sqrt{\omega}}} \quad \left(\frac{9}{r} = \varepsilon / \omega \right) \quad r a + \sqrt{r a^2 + \varepsilon a} = r$$

$$\sqrt{r a^2 + \varepsilon a} = r - r a \Rightarrow r a^2 + \varepsilon a = \varepsilon + 9 a^2 - 12 a \Rightarrow \sqrt{a^2 - 12 a + \varepsilon} = 0$$

$$\Rightarrow a^2 - 12 a + \varepsilon = (a - 12)(a - r) = 0 \Rightarrow a = \frac{12}{\sqrt{\omega}} = r, \quad a = \frac{r}{\sqrt{\omega}}$$

$$a = r \Rightarrow 9 + \varepsilon = r \Rightarrow 9 + \varepsilon = r$$

$$a = \frac{r}{\sqrt{\omega}} \Rightarrow \frac{9}{\sqrt{\omega}} + \sqrt{\frac{1}{\varepsilon a} + \frac{1}{\sqrt{\omega}}} = \frac{12}{\sqrt{\omega}} = r$$

Subject:

Year:

Month:

Date:

$$\frac{\sqrt{n+1}}{\sqrt{n-1}+r} - \frac{\sqrt{n+1}}{r-\sqrt{n-1}} = \frac{n-1}{\sqrt{n-1}} = \sqrt{n-1} \quad - \varepsilon$$

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

$$\frac{-r\sqrt{n-1}}{10-n} = \sqrt{n-1} \Rightarrow \frac{-r \times \sqrt{n-1} \times \sqrt{n+1}}{10-n} = \sqrt{n-1}$$

$$\Rightarrow -r\sqrt{n+1} = 10-n \Rightarrow n - r\sqrt{n+1} - 10 = 0$$

$$n+1 - r\sqrt{n+1} - 11 = 0$$

$$t^2 - rt - 11 = 0 \Rightarrow t = \frac{r \pm \sqrt{\varepsilon n}}{r}$$

$$\Rightarrow \Delta = \varepsilon - \varepsilon(1)(-11) = \varepsilon n$$

$$t = \sqrt{n-1} \Rightarrow t \geq 0 \Rightarrow t = \frac{r + \sqrt{\varepsilon n}}{r} \checkmark$$

بالجواب

$$\frac{1}{\sqrt{r-n}+r} - \frac{1}{r-\sqrt{r-n}} = \frac{r-n}{\omega\sqrt{r-n}} \quad n \neq r$$

$$\frac{r\sqrt{r-n} - \sqrt{r-n} - r}{\varepsilon - r + n} = \frac{r-n}{\omega\sqrt{r-n}} \Rightarrow \frac{-r\sqrt{r-n}}{r+n} = \frac{\sqrt{r-n}}{\omega}$$

بأنه لا يمكن أن يكون

$$\frac{-r}{r+n} = \frac{1}{\omega} \Rightarrow r+n = -10 \Rightarrow n = -12$$

بالجواب

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

$$\frac{14}{9} - \frac{10}{9} = \frac{4}{9} \Rightarrow r = 2$$

$$\left(\frac{1}{n} + \frac{1}{1-n}\right)^2 - r\left(\frac{1}{n(1-n)}\right) = \frac{140}{9} \Rightarrow \left(\frac{1}{n(1-n)}\right)^2 - r\left(\frac{1}{n(1-n)}\right) = \frac{140}{9}$$

$$t^2 - rt = \frac{140}{9} \Rightarrow t^2 - rt + 1 = \frac{140}{9} + 1 \Rightarrow t^2 - rt + 1 = \frac{149}{9}$$

Scanned with CamScanner

SEVIL

$$t-1 = \frac{14}{9} \Rightarrow t = \frac{14}{9} + 1 = \frac{23}{9}$$

$$t-1 = -\frac{14}{9} \Rightarrow t = -\frac{14}{9} + 1 = -\frac{5}{9}$$

Subject:

Year:

Month:

Date:

$$\sqrt{n + \sqrt{-n^3 + 5n^2 + 4\omega n - 100}} + \sqrt{n^2 + \sqrt{-n^2 + 4n - 1}} = n + r - v$$

برای اینکه جواب داشته باشد

$$\hookrightarrow -n^2 + 4n - 1 \geq 0 \Rightarrow n^2 - 4n + 1 \leq 0 \Rightarrow (n-2)(n-2) \leq 0$$

$$\begin{array}{cc} r & 2 \\ + & - \\ 0 & - \end{array} \quad n \in [r, 2] \quad \text{I}$$

$$-n^3 + 5n^2 + 4\omega n - 100 \geq 0$$

$$(4\omega n - n^3) + (5n^2 - 100) \geq 0$$

$$n(4\omega - n^2) + 5(n^2 - 20) \geq 0 \Rightarrow n(4\omega - n^2) \geq 5(20 - n^2) \geq 0$$

$$(4\omega - n^2)(n-2) \geq 0 \Rightarrow \begin{array}{ccc} -\omega & 2 & \omega \\ + & - & + \end{array}$$

$$n \in (-\infty, -\omega] \cup [2, \omega] \quad \text{II}$$

$$\text{I} \cap \text{II} \Rightarrow n = 2$$

فقط جواب

$$\Rightarrow \sqrt{2 + \sqrt{-8 + 20 + 4\omega - 100}} + \sqrt{4 + \sqrt{-4 + 8 - 1}} = 2 + r - v$$

$$r + 2 = 2 + r \Rightarrow n = 2 \rightarrow \text{فقط جواب}$$

$$y = |n+r| + |n-1|$$

$$ny + n = 1v$$

$$y = \frac{1v - n}{n}$$

$$\Rightarrow |n+r| + |n-1| = \frac{1v - n}{n} \Rightarrow n|n+r| + n|n-1| + n - 1v = 0$$

$$\begin{array}{ccc} -r & 1 & \\ \hline -n^2 - 4 - n^2 + r + n - 1v & n^2 + 4 - n^2 + r & n^2 + 4 - n^2 + r \\ + n - 1v & + n - 1v & + n - 1v \end{array}$$

$$-2n - 20$$

$$n-1$$

$$vn - 1v \Rightarrow n = r$$

$$A(r, \omega)$$

$$B(-2, v)$$

$$n=1 \Rightarrow n \in (-2, 1)$$

$$AB = \sqrt{(v-\omega)^2 + (-2-r)^2} = r\sqrt{10}$$

Subject:

Year:

Month:

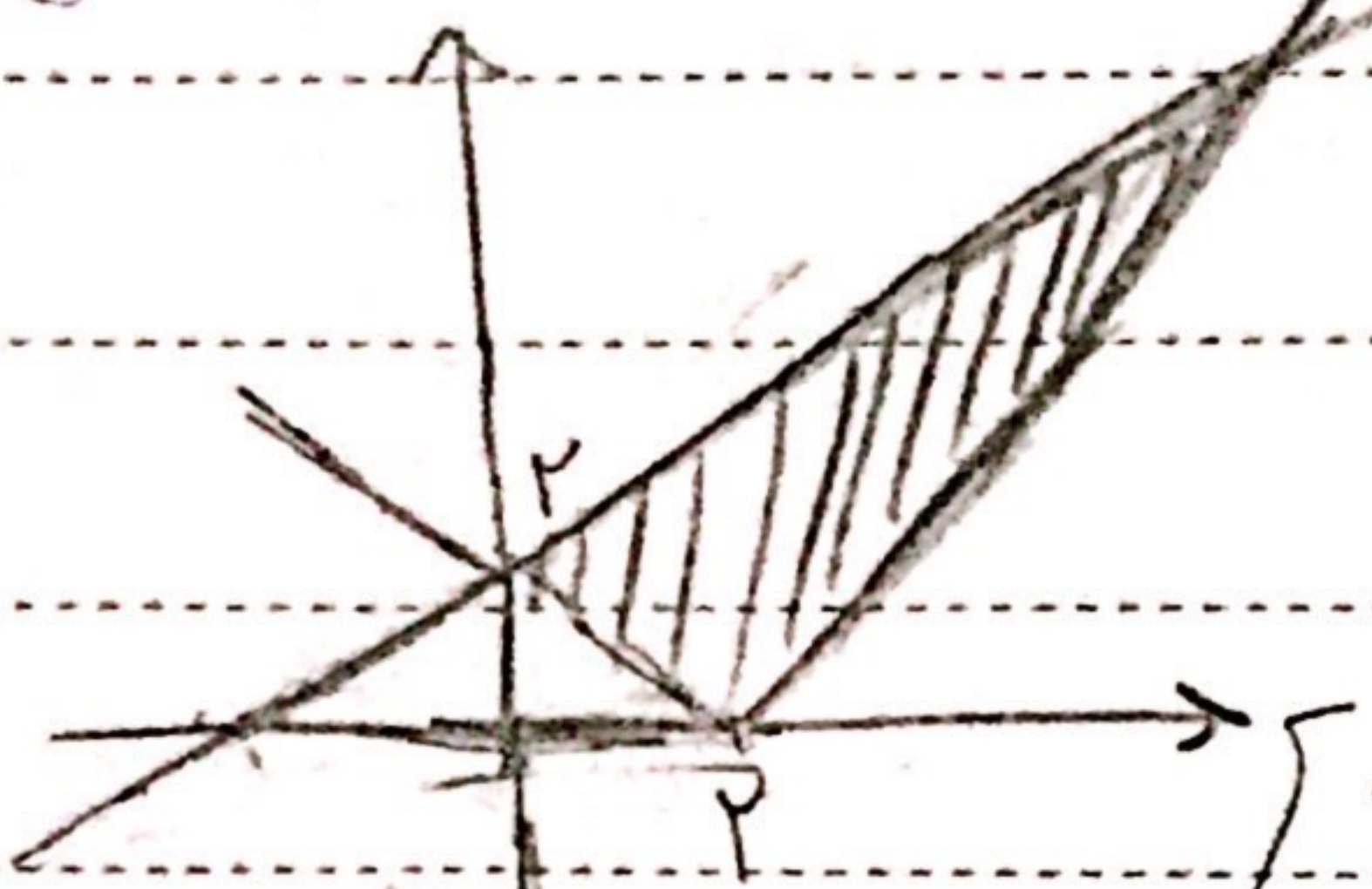
Date:

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

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

9

$$(1, 4) \quad y = \sqrt{(x-r)^2} = |x-r|$$



$$\begin{array}{c|c} r & \\ \hline r-x & x-r \end{array}$$

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

$$|0+2+0-14-12-9| = 22 \quad \left\{ \begin{array}{l} 1 \quad 2 \quad 0 \\ 1 \quad 1 \quad 1 \\ -4 \quad 0 \quad 1 \end{array} \right\} \quad \frac{1}{p} \times 22 = 14 \quad \left\{ \begin{array}{l} r-x = x-r \\ r-x = x+r \\ x=r \end{array} \right. \quad x=r$$

$$x=r \Rightarrow x$$

$$\frac{1}{x}$$

$$x=r \Rightarrow x+9$$

$$\frac{1}{x+9}$$

$$\Rightarrow \frac{1}{x} + \frac{1}{x+9} = \frac{1}{r_0}$$

$$\Rightarrow \frac{r_0 x + 1 + r_0 x}{r_0 x(x+9)} = \frac{x-(x+9)}{r_0 x(x+9)}$$

$$\Rightarrow \frac{2r_0 x + 1}{r_0 x(x+9)} = \frac{-9}{r_0 x(x+9)} \Rightarrow 2r_0 x + 1 = -9 \Rightarrow 2r_0 x = -10 \Rightarrow x = -\frac{5}{r_0}$$

$$x = -\frac{5}{r_0} \quad x = -\frac{5}{r_0} \quad \Rightarrow (x-r_0)(x+9) = 0$$

$$\boxed{x = -\frac{5}{r_0}} \quad \boxed{x = -\frac{5}{r_0}}$$