

$$\frac{u}{y} = \frac{\omega}{\varepsilon} \quad u = \frac{\omega}{\varepsilon} y$$

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نوشته ارسطو - يا زهره سرى B

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

$$(u \text{ و } y) u' = \left(\frac{1+\sqrt{\omega}}{y} \right) y$$

1

$$S_{\text{substitution}} = \frac{1+\sqrt{\omega}}{y} y \times y = \frac{1+\sqrt{\omega}}{y} y^2$$

$$\frac{S_{\text{sub}}}{S} = \frac{\frac{1+\sqrt{\omega}}{y} y^2}{\frac{\omega}{\varepsilon} y^2} = \frac{1+\sqrt{\omega}}{\omega}$$

5

$$x^2 + y^2 = d^2 \Rightarrow d = \sqrt{x^2 + y^2}$$

$$\frac{d}{x} = \frac{1+\sqrt{\omega}}{y} \Rightarrow \frac{\sqrt{x^2 + y^2}}{x} = \frac{1+\sqrt{\omega}}{y}$$

$$\left(\frac{x \sqrt{1 + \left(\frac{y}{x}\right)^2}}{x} = \frac{1+\sqrt{\omega}}{y} \right) \Rightarrow 1 + \left(\frac{y}{x}\right)^2 = \frac{1+\sqrt{\omega}}{\varepsilon}$$

$$\frac{1 + \sqrt{\omega}}{\varepsilon} = \frac{1+\sqrt{\omega}}{y} = 1 + \left(\frac{y}{x}\right)^2$$

2

$$\left(\frac{y}{x}\right)^2 = \frac{1+\sqrt{\omega}}{y} - 1 = \frac{1+\sqrt{\omega} - y}{y} = \frac{1+\sqrt{\omega}}{y}$$

5

$$\left(\frac{x}{y}\right)^2 = \frac{y}{1+\sqrt{\omega}} \times \frac{1-\sqrt{\omega}}{1-\sqrt{\omega}} = \frac{y - y\sqrt{\omega}}{-\varepsilon} = \frac{\sqrt{\omega} - 1}{y}$$

$$ya + \sqrt{ya^2 + \varepsilon a} = y \Rightarrow \sqrt{ya^2 + \varepsilon a} = y - ya$$

$$ya^2 + \varepsilon a = y^2 - 2ya + \varepsilon a \Rightarrow ya^2 - 2ya + \varepsilon a = 0$$

3

$$\Delta = 144$$

$$a \sqrt{y} \times$$

$$\frac{a+1}{a} = 1 + \frac{1}{a} = 1 + \frac{1}{\frac{\varepsilon}{144}} = \frac{145}{144}$$

$$\frac{\varepsilon}{144} \sqrt{y}$$

5

$$\sqrt{x-1} = t \quad x = t^2 + 1$$

نوشتن اریس - یازدهم سری 3

$$\sqrt{x+1} = \sqrt{t^2+2}$$

(4)

$$\frac{\sqrt{t^2+2}}{t+2} - \frac{\sqrt{t^2+2}}{2-t} = \frac{t^2}{t^2-4} = t$$

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

5

$$\frac{2-t-t-2}{4-t^2} = \frac{-2t}{4-t^2}$$

$$\frac{2t \sqrt{t^2+2}}{t^2-4} = t \quad 2\sqrt{t^2+2} = t^2-4$$

$$t > 2$$

$$\varepsilon t^2 + 11 = t^2 - 11t^2 + 11$$

$$\textcircled{4} t^2 - 22t^2 + 11 = 0$$

$$\Rightarrow t^2 = p \quad p^2 - 22p + 11 = 0$$

$$\Delta = 192 \quad x_{1,2} = \frac{22 \pm \sqrt{192}}{2}$$

$$t^2 = 11 \pm 4\sqrt{3}$$

$$= 11 \pm 4\sqrt{3}$$

$$t^2 = 11 - 4\sqrt{3} < 0 \quad t > 2 \Rightarrow t^2 = 11 + 4\sqrt{3}$$

$$t = \sqrt{11 + 4\sqrt{3}} \approx \varepsilon, 23$$

$$x = t^2 + 1 = 11 + 4\sqrt{3} + 1 = 12 + 4\sqrt{3}$$

پایان

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$$\sqrt{P-K} = t \quad K = -t^2 + P$$

$$\frac{1}{t+P} - \frac{1}{P-t} = \frac{t^2}{\omega t}$$

5

$$\frac{-Pt}{P-t^2} = \frac{Pt}{t^2-P} \quad \frac{Pt}{t^2-P} = \frac{t^2}{\omega t} \quad \text{lot } P = t^2 - Kt^2$$

$$t^2 - Kt^2 = 0$$

$$t^2 = P \quad P^2 - K^2 P = 0$$

$$P = t^2$$

$$P = \int_{1E}^0$$

$$K = -t^2 + P$$

$$K = \int_{-1E}^P x \, dx$$

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استیستیک نازار

فوتیستیک اوریس

یازرسدی 3

$$\frac{1}{u^r} + \frac{1}{1-u^r} = \frac{100}{4}$$

$$\left(u - \frac{1}{u}\right)^r = t$$

$$\frac{u(1-u)}{u-u^r} = \frac{1}{r} - \left(u - \frac{1}{u}\right)^r$$

$$10 - 100 + 140t^r = 11t + \frac{100}{r} \Rightarrow 140t^r - 91t + \frac{100}{r} = 0$$

$$140t^r - 91t + 11 = 0$$

$$u - \frac{1}{u} = \pm \sqrt{t} \quad \begin{cases} u = \frac{1}{r} \pm \frac{1}{r} \sqrt{\frac{100}{r}} \\ u = \frac{1}{r} \pm \sqrt{\frac{11}{r}} \end{cases} \quad \begin{cases} \frac{100}{u^r} = \frac{1}{14} \\ \frac{100}{u^r} = \frac{11}{r} \end{cases}$$

$$\frac{100}{u^r} = \frac{1}{14} + \frac{11}{r} + \sqrt{\frac{11}{r}} + \frac{1}{r} - \sqrt{\frac{11}{r}} = \frac{1}{r}$$

beşinci derece - çözümleri

$$1) -u^r + Fu^r + r\Delta u - 1 > 0 \rightarrow u \in [-\infty, -\alpha] \cup [r, \alpha]$$

$$u + r > 0 \rightarrow u \in [-r, \alpha]$$

$$2) -u^r + 4u - 1 > 0 \rightarrow u \in [r, r]$$

$$3) u + \sqrt{-u^r + Fu^r + r\Delta u - 1} > 0 \rightarrow u > 0$$

$$4) u^r + \sqrt{-u^r + 4u - 1} > 0 \rightarrow \text{هنا مربعات}$$

$$u = r \rightarrow r + r = 4$$

معادلات جواب دار

(15)

$$\begin{array}{c} \frac{14-u}{r} = -((u+r)-(u-1)) \\ \begin{array}{l} -\omega u = 0 \\ u = -r \\ -r - r = -r \end{array} \end{array}$$

$$|u+r| + |u-1| = \frac{14-u}{r}$$

$$\begin{array}{c} \begin{array}{c} (u+r)-(u-1) = \frac{14-u}{r} \\ u = 1 \end{array} \end{array}$$

$$\begin{array}{c} u = r \\ u = 1 \end{array}$$

فرض کنیم $u = r$ و $u = 1$

(1)

(2)

$$d = \sqrt{(-\varepsilon - r)^2 + (1 - \alpha)^2} = \sqrt{4r^2 + r^2} = \sqrt{5r^2}$$

$$= r\sqrt{5}$$

$$u = r, y = r$$

$$u = r, y = \omega$$

$$u = -\varepsilon, y = 1$$

بسم الله الرحمن الرحيم

9)

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

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

$$\begin{array}{c|c} & x \\ \hline x - r & -\frac{1}{r}x + r \end{array}$$

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

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

$$\frac{1}{x} = \frac{1}{r} + \frac{1}{r^2}$$

S =

A 10

$$\begin{array}{l} x = 0 \\ -x = -r \\ -x = -\frac{1}{r}x \end{array}$$

$$\begin{array}{l} A(r) = \frac{1}{r}x + r \\ B(r) = \frac{1}{r}x + r \\ C(r) = \frac{1}{r}x + r \\ S = \frac{1}{r}x + r = 1r \end{array}$$

$$\left(\frac{1}{x} + \frac{1}{r} \right) = \frac{1}{r} + \frac{1}{r} = \frac{2}{r}$$

$$(x+r)r_0 + r(r_0) = r(x+r)$$

$$r_0x + r_0 + r_0x = r_0x + r_0$$

$$x^2 + rx - 1r_0 = 0$$

$$\Delta = 1r_0^2$$

$$\begin{array}{l} x_1 = r_0 \\ x_2 = r_0 \end{array}$$

$$\sqrt{x^2 - r_0x + r_0^2}$$

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9)