

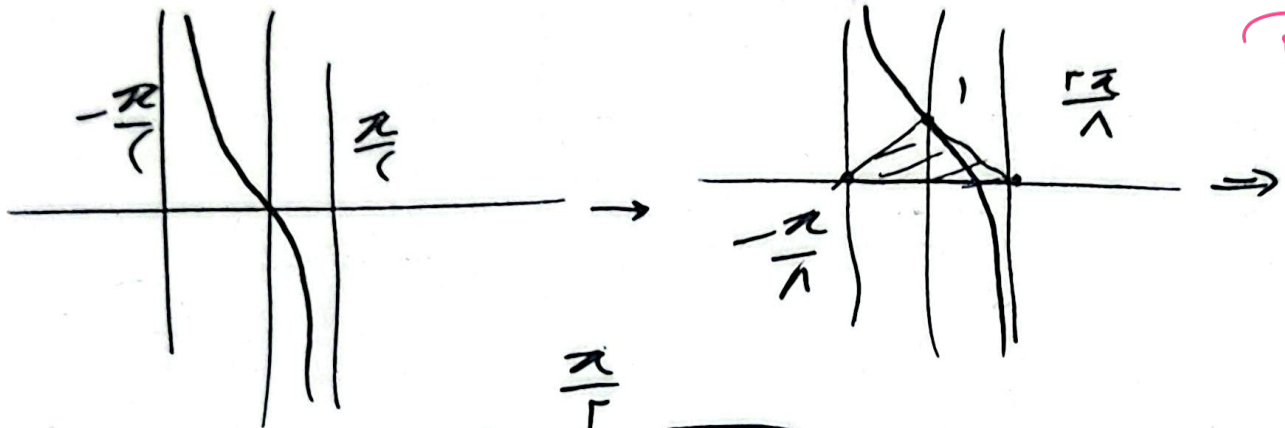
شعبه کتب: ۱۵۲

۲۰ آفرین

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$$y = -\tan\left(rn - \frac{\pi}{\epsilon}\right)$$

①



$$y = \frac{1}{r} x \mid x \in \left[\frac{\pi}{\epsilon}, \frac{3\pi}{\epsilon} \right] \quad \checkmark$$

$$\frac{\Sigma}{A} = \frac{r}{\epsilon} \sin \alpha - \frac{1}{\epsilon} \cos \alpha \Rightarrow$$

$$\frac{1}{\epsilon} \sin \alpha - \frac{r}{\epsilon} \sin \alpha + \frac{\Sigma}{A} - \frac{1}{\epsilon} \cos \alpha \Rightarrow \begin{cases} \sin \alpha = \frac{\sqrt{A}}{r} \\ \sin \alpha = \frac{1}{r} \end{cases}$$

$$\sin \alpha = \frac{1}{r} \rightarrow \cos \alpha = \frac{1}{A} \Rightarrow$$

$$1 + \cos \alpha = \frac{1}{\cos \alpha} \mid \frac{1}{A} \in \left[\frac{1}{A}, 1 \right] \quad \checkmark$$

$$y = \frac{\sin \alpha}{2\alpha}, \quad y' \Rightarrow -\frac{\cos \alpha}{2}, \quad y'' \Rightarrow \frac{\sin \alpha}{2} \quad (1)$$

$$\left. \begin{array}{l} \sin \alpha \\ 2\alpha \end{array} \right\} \rightarrow \frac{1}{2\alpha} \rightarrow 1 + \frac{1}{2\alpha} \Rightarrow \frac{1}{2\alpha} = \frac{1}{\sqrt{11}}, \quad \sin \alpha = \frac{1}{\sqrt{11}}$$

$$\rightarrow \sin \alpha = \frac{1}{\sqrt{11}}, \quad \frac{1}{2\alpha} = \frac{1}{\sqrt{11}} \Rightarrow \frac{1}{\sqrt{11}}$$

$$\sin \theta = \frac{1}{\sqrt{11}}, \quad \frac{1}{2\theta} = \frac{1}{\sqrt{11}} \quad (2)$$

$$\left(\sin \theta + \sin \theta, (1 - \sin \theta)^2 + \sin \theta \right) \Rightarrow \sin^2 \theta - \sin \theta + 1 + \sin \theta$$

$$\sin \theta - \sin \theta + 1 = \left[\sin^2 \theta - \sin \theta + \frac{1}{8} \right] + \frac{1}{8} \Rightarrow \frac{1}{8}$$

$$\frac{\sin \theta (1 + \sin \theta)}{1 + \sin \theta} \Rightarrow \sin \theta \quad (3)$$

$$\sin \theta = \frac{1}{\sqrt{11}}, \quad \frac{1}{2\theta} = \frac{1}{\sqrt{11}} \Rightarrow \frac{1}{\sqrt{11}}$$

→ پس در این صورت (1) و (2) و (3)

$$\frac{\Sigma}{\sin r_m} + \frac{a}{a r_m} + \frac{1r}{\sin r_m a r_m} \dots \Rightarrow$$

(4)

$$\Sigma(1 + a r_m) + a(1 + \phi a r_m) + 1r(\phi r_m + a r_m), \dots \Rightarrow$$

$$\Sigma a r_m + 1r a r_m + a + a \phi r_m + 1r \phi r_m + \Sigma \dots \Rightarrow$$

$$(r a r_m + r) + (r \phi r_m + r) \dots \Rightarrow$$

$$a r_m = -\frac{r}{r} \quad \phi r_m = -\frac{r}{r} \rightarrow a r_m + \phi r_m = -\frac{r}{r} - \frac{r}{r} = -\frac{1r}{1} \Rightarrow$$

$$\frac{\sin r_0 + a r_0}{\sin(r_0 + r_1) + \sin(r_0 - r_1)} \cdot \frac{\sqrt{r} \sin(\sqrt{r})}{a r_1} \cdot \sqrt{r} \Rightarrow$$

$$\frac{(1 - \cancel{r \sin r_0})}{Q1.} \cdot \frac{(r a r_1 - 1)}{Q2.} \cdot \frac{(1 - \cancel{\phi r_1})}{Q3.} \times \frac{\sin 1.}{\sin l.} \Rightarrow$$

$$\frac{\frac{1}{\lambda} \cdot \cancel{\sin A} \cdot Q1.}{\sin l.} \cdot a r_1 \times \frac{1}{\lambda} \cdot \left[\frac{1}{\lambda} a r_1 \right]$$

$$\sin \alpha = 1 - 3Q\alpha \xrightarrow{\text{به توان ۲}} \frac{\sin^2 \alpha}{1 - Q^2 \alpha^2} = 4Q^2 \alpha^2 - 12Q\alpha + 1 \rightarrow \textcircled{4}$$

$$1 - Q^2 \alpha^2 - 12Q\alpha + 1 = 0$$

فروتنه بردار: $5(12Q\alpha - 1) - 12Q\alpha = 1 - Q^2 \alpha^2 - 12Q\alpha - 1$

$$1 - Q^2 \alpha^2 - 12Q\alpha + 1 = 1 - 1$$

$$C + A = 1 \cdot 1 \rightarrow \hat{C} = 1 \cdot 1 - \hat{A}$$

$$\sin v r \sin(1 - \hat{A} - \hat{A}) = \sin v r \sin(v r + A) = \sin v r (\sin v r C A + \sin A Q e r)$$

$$\sin v r C A + \sin v r C v r \sin A = \frac{1 + Q A}{r} \Rightarrow$$

$$r \sin v r C A + \sin 1 \Sigma \Sigma \sin A = 1 + Q A \Rightarrow$$

$$Q A (\underbrace{r \sin v r - 1}_{-Q 1 \Sigma \Sigma}) = 1 - \sin 1 \Sigma \Sigma \sin A \Rightarrow$$

$$-1 = Q A Q 1 \Sigma \Sigma - \sin A \sin 1 \Sigma \Sigma \Rightarrow$$

$$-1 = Q(A + 1 \Sigma \Sigma) \rightarrow \boxed{A = 34^\circ}$$