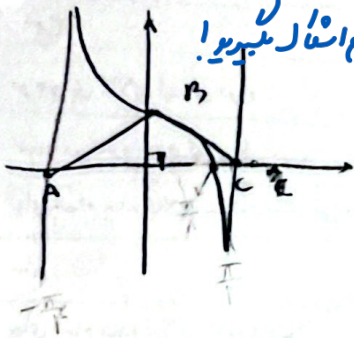


۱۳، ۲۵

سازنیاسی

مسوالت تلف ساده بود اند با وجود وقت گذاشتن باز هم اشکار دارید قلم رنم اشکار بگیرد!



$$T = \frac{\pi}{|f|} = \frac{\pi}{1} \Rightarrow AB = \frac{\pi}{1}$$

①

$$\tan(-f(x(0) + \frac{\pi}{f}) = 1 \Rightarrow B = (0, 1)$$

✓

$$\Delta = \frac{1 \times \frac{\pi}{1}}{1} = \frac{\pi}{1} \checkmark$$

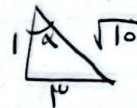
$$\cos \alpha = 1 - \frac{1 + 1 - \sqrt{11}}{1} = \frac{-2 + \sqrt{11}}{1}$$

②

$$\frac{f}{g} - \frac{f}{1} \sin \alpha + \frac{1}{1} (1 - \sin \alpha) = 0$$

$$9 \sin \alpha + 12 \sin \alpha - 5 = 0 \Rightarrow \sin \alpha = \frac{\sqrt{11} + 1}{2} \Rightarrow 1 + \cos \alpha = \frac{1}{\cos \alpha} = \frac{1}{-2 + \sqrt{11}} = \frac{1}{\sqrt{11} - 9}$$

$$= \log(-\tan \alpha) = \log 1 \Rightarrow -\tan \alpha = 1 \Rightarrow \tan \alpha = -1$$



$$\sin \alpha = + \frac{1}{\sqrt{2}}, \quad \alpha = - \frac{\sqrt{2}}{2}$$

③

$$\begin{aligned} \sin \alpha > 0 \\ -\cos \alpha > 0 \Rightarrow \cos \alpha < 0 \end{aligned} \Rightarrow \alpha \text{ در ربع دوم}$$

$$\frac{\sqrt{10}}{10} + \frac{\sqrt{10}}{10} > \frac{\sqrt{10}}{10}, \quad \frac{\sqrt{10}}{8}$$

④

$$\left. \begin{aligned} \sin^2 \theta - \sin^2 \theta + 1 - \frac{f}{g} \\ \sin^2 \theta - \cos^2 \theta + 1 = 0 \end{aligned} \right\} \Rightarrow \sin^2 \theta - \cos^2 \theta - \sin^2 \theta + \frac{f}{g} = \frac{f}{g} - 1$$

$$\frac{f}{g} - 1 = 0 \Rightarrow \frac{f}{g} = 1$$

✓

$$\frac{\sin \alpha (1 + \cos \alpha)}{1 + \cos \alpha} < 0 \Rightarrow \sin \alpha < 0$$

$$\frac{1(\sin \alpha)}{1 + \cos \alpha}$$

$$\frac{\sin \alpha - 1}{\cos \alpha}$$

$$\sin \alpha \neq -1 \Rightarrow \sin \alpha < 0 \Rightarrow \cos \alpha < 0$$

$$\Rightarrow \alpha \text{ در ربع سوم}$$

⑤

✓

$$\frac{1 \cos \alpha + 1 \sin \alpha}{\cos \alpha \sin \alpha} = 0$$

$$1 \cos \alpha = -1 \sin \alpha \Rightarrow \frac{\sin \alpha}{\cos \alpha} = \frac{1}{-1} = -1$$

⑥

$$\begin{aligned} -\frac{1}{1} + (-\frac{1}{1}) &= \frac{-1-1}{1} = \frac{-2}{1} = -2 \\ &= -\frac{1}{1} \checkmark \end{aligned}$$

✓

$$\sqrt{1+\sin\alpha} = \sqrt{1+\cos\alpha} \xrightarrow{\text{فرمول های}} \sqrt{r\cos^2\alpha} = \sqrt{r} |\cos\alpha| = \sqrt{r}\cos\alpha$$

$$\sin\alpha + \sin\beta = \sin(\alpha + \beta) + \sin(\alpha - \beta)$$

$$\sin\alpha \cos\beta + \sin\beta \cos\alpha + \sin\alpha \cos\beta - \sin\beta \cos\alpha = 2\left(\frac{1}{2}\right)\cos\alpha = \cos\alpha$$

$$\frac{\sqrt{r}\cos\alpha}{\cos\alpha} = \boxed{\sqrt{r}}$$

$$1 - \sin\alpha = 1 - \cos\alpha \Rightarrow 1 - \sin\alpha = \cos\alpha$$

$$\frac{1+\sin\alpha}{1-\sin\alpha} = \frac{1+\cos\alpha}{1-\cos\alpha}$$

$$1 - \cos\alpha$$

$$\cos\alpha = \frac{r+\sin\alpha}{r} \Rightarrow -1 \cos\alpha = \frac{r+\sin\alpha - r\sin\alpha}{r} = 1 - \sin\alpha$$

$$1 - \sin\alpha - r\sin\alpha - \alpha = 0 \rightarrow \sin\alpha = \frac{r\sqrt{r+1}}{1}$$

$$\sin\alpha = \frac{-r\sqrt{r+1}}{1} \text{ جایی}$$

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

$$\Rightarrow r \sin\beta \sin\alpha = 1 - \cos\beta \cos\alpha + \sin\beta \sin\alpha \Rightarrow \sin\beta \sin\alpha + \cos\beta \cos\alpha = 1 \Rightarrow \cos(\beta - \alpha) = 1$$

$$A = 180 - \frac{(r\sqrt{r+1})}{r} = 11^\circ$$

$$\beta - \alpha = 0 \Rightarrow \beta = \alpha$$

$$\cos(\beta - \alpha) = 1 \Rightarrow \beta - \alpha = 0 \Rightarrow \beta = \alpha$$

$1 - r \sin^2 \delta = c \cdot s \cdot i$
 $r \cdot c \cdot s \cdot i - 1 = c \cdot s \cdot r$

فرمولهای

$\frac{1 - \tan^2 r}{1 + \tan^2 r} = \frac{c \cdot s^2 r - \sin^2 r}{c \cdot s^2 r + \sin^2 r} = c \cdot s \cdot f$

$c(r \times r) = c \cdot \epsilon$

سوال ۸

$(\sin 10) \cdot c \cdot s \cdot i \cdot x \cdot c \cdot s \cdot r \cdot x \cdot c \cdot s \cdot f =$

$\frac{1}{r} \sin r \cdot x \cdot c \cdot s \cdot r \cdot x \cdot c \cdot s \cdot f$

$\frac{1}{r} \times \frac{1}{r} \sin \epsilon \cdot x \cdot c \cdot s \cdot \epsilon =$

$\frac{1}{r} \times \frac{1}{r} \times \frac{1}{r} \sin n = \frac{\frac{1}{\lambda} \sin \lambda}{\sin 10} = \frac{1}{\lambda} \cot 10$

$\sin \alpha + r \cdot c \cdot s \cdot \alpha = r \rightarrow \sin \alpha = r - r \cdot c \cdot s \cdot \alpha$

توان ۲ $\sin^2 \alpha = (r - r \cdot c \cdot s \cdot \alpha)^2$

$1 - c \cdot s^2 \alpha = 9 c \cdot s^2 \alpha + r - 12 c \cdot s \cdot \alpha \rightarrow 1 \cdot c \cdot s^2 \alpha - 12 c \cdot s \cdot \alpha + r = 0$

فرمول درجی

$1 \cdot \left(\frac{1 + c \cdot s^2 \alpha}{r} \right) - 12 c \cdot s \cdot \alpha + r \rightarrow \Delta + \Delta c \cdot s^2 \alpha - 12 c \cdot s \cdot \alpha + r = 0$

(خواسته سوال)

$\Delta c \cdot s^2 \alpha - 12 c \cdot s \cdot \alpha = -1$

$c \cdot s^2 \frac{A}{r} = \frac{1 + c \cdot s \cdot A}{r} \rightarrow r \sin B \sin c = 1 + c \cdot s \cdot A$

$A + B + C = \pi \rightarrow A = \pi - (B + C)$

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$1 + c \cdot s(\pi - (B + C)) = 1 - c \cdot s(B + C) = r \sin B \sin c$

$1 - c \cdot s \cdot B \cdot c \cdot s \cdot c + \sin B \sin c = r \sin B \sin c \rightarrow \sin B \sin c + c \cdot s \cdot B \cdot c \cdot s \cdot c = 1$

$c \cdot s(B - C) = 1 \rightarrow B - C = 0 \checkmark$

$B - C = \pi \times$

$B = C \rightarrow A = 180^\circ - 144^\circ = 36^\circ$

$B + C = 2B \quad (r \times r)$

$$x = \frac{r}{r} \Rightarrow \left(\frac{r}{r}\right)^2 - \frac{r}{r} \sin \alpha - \frac{\cos^2 \alpha}{r} = 0.$$

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$$\frac{r}{9} - \frac{r}{r} \sin \alpha - \frac{(1 - \sin^2 \alpha)}{9} = 0 \rightarrow \frac{9 \sin^2 \alpha - 9 - r \sin \alpha + 14}{94} = 0.$$

$$9 \sin^2 \alpha - r \sin \alpha + 5 = 0. \xrightarrow{\text{GWS}} \sin^2 \alpha - r \sin \alpha + 5(9) = 0.$$

$$(\sin \alpha - r1)(\sin \alpha - r) = 0 \rightarrow \sin \alpha = \frac{1}{r} \quad \text{b} \quad \frac{r}{r}$$

$$\sin \alpha = \frac{1}{r} \rightarrow \cos^2 \alpha = 1 - \frac{1}{9} = \frac{8}{9}$$

$$1 + \tan^2 \alpha = \frac{1}{\cos^2 \alpha} = \frac{1}{\frac{8}{9}} = \boxed{\frac{9}{8}}$$