

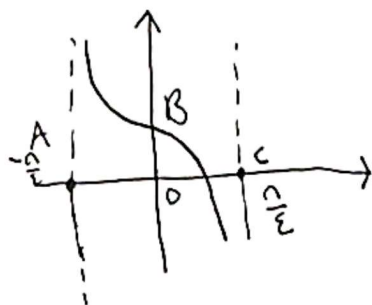
$$y = \tan(-2x + \frac{\pi}{2})$$

$$T = \frac{\pi}{|b|} = \frac{\pi}{2}$$

$$A = \frac{\pi}{2} + \frac{\pi}{2} = \pi$$

$$OB = 1$$

$$S_{ABC} = \frac{\pi}{2} \times \frac{1}{2} = \frac{\pi}{4}$$



$$A(-\frac{\pi}{2}, 0)$$

$$-\frac{\pi}{2} + \frac{\pi}{2} = 0 = x_C$$

$$f(0) = \tan(\frac{\pi}{2}) = 1 \quad B(0, 1)$$

$$x^2 - (\sin \alpha)x - \frac{1}{2} \cos^2 \alpha = 0$$

$$\frac{x}{\frac{1}{2}} - \frac{1}{\frac{1}{2}} \sin \alpha - \frac{1}{2} \cos^2 \alpha = 0$$

$$1 + \tan^2 \alpha = \frac{1}{\cos^2 \alpha} = \frac{9}{4}$$

$$\frac{2}{9} - \frac{1}{2} \sin \alpha - \frac{1}{2} + \frac{1}{2} \sin^2 \alpha = 0$$

$$2 \sin^2 \alpha - 2 \sin \alpha + 1 = 0$$

غير متجانس
 $\sin \alpha = \frac{1}{2}$
 $\sin \alpha = \frac{1}{2}$
 $\cos \alpha = \frac{\sqrt{3}}{2}$

$$\log \sin \alpha - \log(-\cos \alpha) = \log 2$$

$$D_f = \left\{ \begin{array}{l} \sin \alpha > 0 \\ -\cos \alpha > 0 \end{array} \right\} \Rightarrow \cos \alpha < 0$$

$$\sin \alpha - \cos \alpha = \frac{1}{\sqrt{10}} + \frac{1}{\sqrt{10}} = \frac{2}{\sqrt{10}} = \frac{2}{\sqrt{10}}$$

$$\log(-\tan \alpha) = \log 2$$

$$\begin{array}{l} -\tan \alpha = 2 \\ \tan \alpha = -2 \end{array} \Rightarrow \begin{array}{l} \sin \alpha = \frac{2}{\sqrt{5}} \\ \cos \alpha = -\frac{1}{\sqrt{5}} \end{array}$$

$$\cos^2 \theta + \sin^2 \theta$$

$$\sin^2 \theta + \cos^2 \theta = \frac{2}{3}$$

$$(1 - \cos^2 \theta) + \cos^2 \theta = \frac{2}{3}$$

$$\cos^2 \theta - 2 \cos^2 \theta + 1 + \cos^2 \theta = \frac{2}{3}$$

$$\cos^2 \theta - (1 - \sin^2 \theta) + \cos^2 \theta = \frac{2}{3}$$

$$\cos^2 \theta + \sin^2 \theta = \frac{2}{3}$$

$$\sin x \tan x - \frac{1}{\cos x} > 0$$

$$\frac{\sin^2 x - 1}{\cos x} > 0$$

$$\Rightarrow \cos x < 0$$

$$\frac{1 \sin x + \sin x \cos x}{1 - 2 \cos^2 x} < 0$$

$$\frac{\sin x (1 + \cos x)}{1 - 2 \cos^2 x} < 0$$

$$\Rightarrow \sin x < 0$$

در ناحیه سوم قرار دارد

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

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

$$p \cos \alpha + p \sin \alpha = 0$$

$$p \cos \alpha = -p \sin \alpha$$

$$-\frac{p}{p} = \tan \alpha$$

$$-\tan \alpha + \cot \alpha = ?$$

$$-\frac{p}{p} - \frac{p}{p} = \frac{-1p}{p}$$

$$\frac{\sqrt{1+\sin 0}}{\sin 0 + \sin 0} = \frac{\sqrt{1+\cos 0}}{\cos 0} = \frac{\sqrt{1+\cos 0}}{\cos 0} = \sqrt{p}$$

$$(1-p \sin^2 \alpha) (p \cos 10^\circ - 1) \left(\frac{1-\tan^2 \alpha}{1+\tan^2 \alpha} \right)$$

$$\frac{\sin 10^\circ \cos 10^\circ \cos 10^\circ \cos 10^\circ}{\sin 10^\circ \frac{1}{p} \sin 10^\circ} = \frac{\frac{1}{p} \sin 10^\circ}{\sin 10^\circ} = \frac{1}{p} \cos 10^\circ = \frac{1}{p} \cot 10^\circ$$

$$\frac{a \cos^2 \alpha - 1}{p \cos^2 \alpha - 1}$$

$$\frac{1 \cos^2 \alpha - 1}{-p} = -1$$

$$\sin \alpha + p \cos \alpha = p$$

$$\sin \alpha = p - p \cos \alpha$$

$$\sin \alpha = \frac{p(1 - \cos \alpha)}{1 - \cos \alpha}$$

$$1 \cos^2 \alpha + 1 \cos \alpha + p = 0$$

$$1 \cos^2 \alpha - 1 \cos \alpha - p = 0$$

$$\sin \hat{B} \sin \hat{C} = \frac{\cos \hat{A}}{p} \quad \hat{B} = 90^\circ \quad \hat{A} = 90^\circ$$

$$p \sin \hat{B} \sin \hat{C} - 1 = \cos \hat{A}$$

$$p \sin \hat{B} \sin \hat{C} - 1 = \cos \hat{B} \cos \hat{C} + \sin \hat{B} \sin \hat{C}$$

$$\sin \hat{B} \sin \hat{C} + \cos \hat{B} \cos \hat{C} = 1$$

$$\cos(180 - (B+C)) = \cos(B+C) = (\cos \hat{B} \cos \hat{C} - \sin \hat{B} \sin \hat{C})$$

$$= \sin \hat{B} \sin \hat{C} - \cos \hat{B} \cos \hat{C}$$

$$\cos(C-B) = 1$$

$$C-B=0 \quad \Rightarrow A=90^\circ$$

$$C=B=45^\circ$$