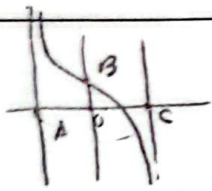


نام و نام خانوادگی: ..... حساب ..... پاسخنامه تشریحی تکلیف شماره ..... کلاس: ..... تاریخ: .....



$$\tan\left(x + \frac{\pi}{\epsilon}\right) \rightarrow x = 0 \rightarrow \tan \frac{\pi}{\epsilon} = 1 \Rightarrow B(0, 1)$$

$$\rightarrow \text{در } B \text{ از } \frac{1}{F} = \frac{h}{AC} \rightarrow AC = \frac{h}{F}$$

$$\sum_{AMC} 2 h \times AC = \frac{1}{F} \cdot 1 \times \frac{h}{F} \times \frac{1}{F} = \frac{h}{\epsilon}$$

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

$$\frac{1}{\epsilon} \sin^2 \alpha - \frac{1}{F} \sin \alpha + \frac{1}{F} = 0 \rightarrow 4 \sin^2 \alpha - 2 \epsilon \sin \alpha + \epsilon = 0 \rightarrow \sin \alpha = \frac{1}{2\epsilon}$$

$$\rightarrow \sin \alpha = \frac{1}{2\epsilon} \rightarrow \sin^2 \alpha = \frac{1}{4\epsilon^2} \rightarrow \sin^2 \alpha + \cos^2 \alpha = 1 \rightarrow \cos^2 \alpha = \frac{1}{4\epsilon^2}$$

$$\rightarrow 1 + \tan^2 \alpha = \frac{1}{\cos^2 \alpha} = \frac{4\epsilon^2}{1} \quad \checkmark$$

$$\log \sin \alpha = \log(-\cos \alpha) \rightarrow \log \mu = \log \mu \rightarrow \log \frac{\sin \alpha}{-\cos \alpha} = \log \mu \rightarrow -\tan \alpha = \mu$$

$$\tan \alpha = -\mu \quad \begin{matrix} \sin \alpha = \frac{\mu}{\sqrt{1+\mu^2}} \\ \cos \alpha = \frac{1}{\sqrt{1+\mu^2}} \end{matrix} \rightarrow \sin \alpha = \frac{\mu}{\sqrt{1+\mu^2}} \rightarrow \cos \alpha = \frac{1}{\sqrt{1+\mu^2}}$$

$$\sin \alpha - \cos \alpha = \frac{\mu \sqrt{1+\mu^2} - \sqrt{1+\mu^2}}{1} = \frac{\epsilon \sqrt{1+\mu^2}}{1} = \frac{\epsilon \sqrt{1+\mu^2}}{\omega} \quad \checkmark$$

$$\sin^2 \theta + \cos^2 \theta = \frac{\epsilon}{\omega} \quad \cos^2 \theta + \sin^2 \theta = 1$$

$$1 - \frac{\epsilon}{\omega} = \cos^2 \theta - \sin^2 \theta + \sin^2 \theta - \cos^2 \theta = 0 \rightarrow 1 = \frac{\epsilon}{\omega}$$

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

$$\rightarrow \cos^2 \theta + \sin^2 \theta = \frac{\epsilon}{\omega} \quad \checkmark$$

$$\frac{\mu \sin \alpha + \sin \alpha \cos \alpha}{\mu(1 - \cos^2 \alpha)} < 0 \quad \sin \alpha \tan \alpha - \frac{1}{\cos \alpha} > 0 \rightarrow \frac{\sin \alpha}{\cos} - \frac{1}{\cos} > 0$$

$$\rightarrow \frac{-\cos^2 \alpha}{\cos} > 0 \rightarrow \cos < 0 \quad \left\{ \begin{matrix} \sin(\mu + \cos \alpha) \\ \mu \sin \alpha \\ + \end{matrix} \right. < 0 \rightarrow \sin < 0$$

نام و نام خانوادگی: ..... تاریخ: .....

$$\frac{r}{\sin \alpha} + \frac{r}{\cos \alpha} = 2 \rightarrow \frac{r}{\sin \alpha} = \frac{2}{\cos \alpha} \rightarrow \frac{\sin \alpha}{\cos \alpha} = \frac{2}{r} \rightarrow \tan \alpha$$

$$\tan \alpha = \frac{r}{r} \cot \alpha = \frac{r}{r} \quad \tan \alpha + \cot \alpha = \frac{r}{r} + \frac{r}{r} = \frac{2r}{r}$$

$$\frac{\sqrt{1+\sin \alpha}}{\sin \alpha + \sin 1} = \frac{\sqrt{1+\cos \alpha}}{\sin(\frac{\pi}{2}+\alpha) + \sin(\frac{\pi}{2}+\alpha)} = \frac{\sqrt{r \cos \alpha}}{\frac{1}{r} \cos \alpha + \sin \alpha \cdot \frac{r}{r} + \frac{1}{r} \cos \alpha - \frac{r}{r} \sin \alpha}$$

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

$$\frac{(1-r \sin^2 \alpha)(r \cos^2 \alpha - 1)}{\cos \alpha} \cdot \left( \frac{1 - \tan^2 \alpha}{1 + \tan^2 \alpha} \right)$$

$$\cos \alpha \times \cos \alpha \times \cos \alpha \times \frac{\sin \alpha}{\sin \alpha} = \frac{1 - \tan^2 \alpha}{1 + \tan^2 \alpha} = \frac{1 - \frac{\sin^2 \alpha}{\cos^2 \alpha}}{1 + \frac{\sin^2 \alpha}{\cos^2 \alpha}} = \frac{\cos^2 \alpha - \sin^2 \alpha}{\cos^2 \alpha + \sin^2 \alpha} = \frac{\cos^2 \alpha - \sin^2 \alpha}{1}$$

$$\frac{1}{\cos \alpha} \cot \alpha$$

$$\sin \alpha + r \cos \alpha = 2 \rightarrow \sin \alpha + r - r \cos \alpha \rightarrow \sin \alpha = r + r \cos \alpha - 1 \cos \alpha$$

$$1 \cos \alpha - r \cos \alpha + r = 2 \rightarrow 1 \cos \alpha - r \cos \alpha = 2 - r$$

$$\omega \cos \alpha - r \cos \alpha = \omega(r \cos \alpha - 1) - r \cos \alpha = 1 \cos \alpha - r \cos \alpha - \omega$$

$$= -\omega$$

$$\sin B \sin C = \cos \frac{A}{2}$$

$$\rightarrow \sin B \sin C = \frac{1}{2} (\cos(B-C) - \cos(B+C)) = \frac{1 + \cos A}{2}$$

$$\cos(B-C) + \cos A = 1 + \cos A \rightarrow \cos(B-C) = 1 \rightarrow B-C = 0$$

$$B = C = \sqrt{r} \rightarrow A = 2\sqrt{r}$$

در استخوان بینی عصب ها را ببند!