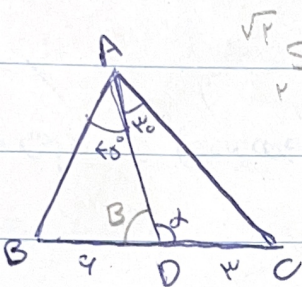


$$\sin \alpha = \cos(1)$$

۱- طول AB

$$\cos(1) = \frac{OT}{OB} \quad OB = \frac{1}{\sin \alpha}$$

$$AB = OB - OA = \frac{1}{\sin \alpha} - 1$$

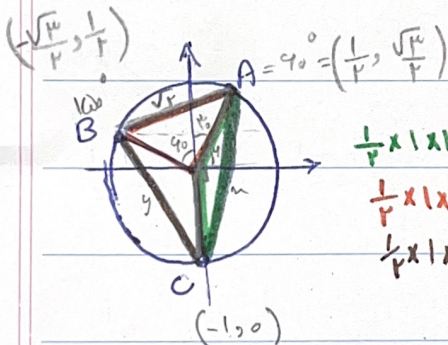


$$\frac{\sin 40}{4} = \frac{\sin B}{AB}$$

$$\alpha + B = \pi \Rightarrow \sin \alpha = \sin B$$

$$\frac{1}{4} \frac{\sin 40}{4} = \frac{\sin \alpha}{AC} \quad \frac{AB}{AC} = \frac{4}{4}$$

$$AB = \frac{\sin 3.14}{\sqrt{2}} = \frac{1}{\sqrt{2}} = \frac{1}{\sqrt{2}}$$



۲- طول BC و AC

۳- طول BC و AC

$$\frac{1}{4} \times 1 \times 1 \times \sin 100 = \frac{1}{4}$$

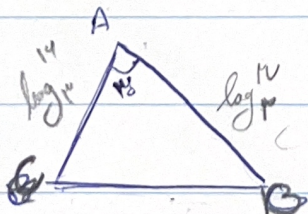
۴- طول BC و AC

$$\frac{1}{4} \times 1 \times 1 \times \sin 40 = \frac{1}{4}$$

$$\frac{1}{4} \times 1 \times 1 \times \sin \frac{\sqrt{2}}{2} = \frac{\sqrt{2}}{4}$$

$$P = \frac{\sqrt{4} + \sqrt{2} + 2\sqrt{2} + 2\sqrt{2}}{2} = \frac{\sqrt{2} + 2\sqrt{2} + 2\sqrt{2}}{2}$$

۵- طول BC و AC



$$S_{ABC} = \frac{1}{2} \times \log_{14} \times \log_{14} \times \frac{1}{2} =$$

$$\frac{1}{2} \times 2 \log_{14} \times 2 \log_{14} \times \frac{1}{2} = 1$$

$$\frac{1}{\log_{14}}$$

$$w = p(n)q(n) + r$$

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

Subject

Date

3- باقی مانده قسمتی $\cos^2 \alpha$ بر $p \cos^2 \alpha - \cos^2 \alpha - \sin^2 \alpha (p \sin^2 \alpha - 1)$ بر $x - \cos \alpha$ برابر است

$$\sin^2 \alpha = ?$$

$$x = \cos \alpha \rightarrow p \cos^2 \alpha - \cos^2 \alpha - \sin^2 \alpha (p \sin^2 \alpha - 1) = \cos^2 \alpha (p \cos^2 \alpha - 1) +$$

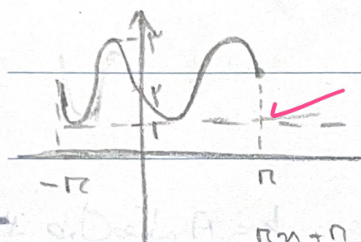
$$\sin^2 \alpha \cos^2 \alpha = \cos^2 \alpha (\cos^2 \alpha + \sin^2 \alpha) = 1 - \cos^2 \alpha$$

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

4- رسم کنید (دیردوره کنید)

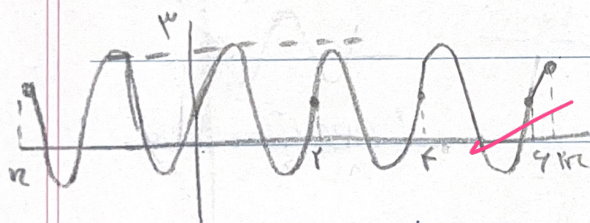
$$\text{a)} \quad \sin^2 x \quad [-\pi, \pi] \quad - \sin^2 x + 1$$

$$T = \frac{2\pi}{p} = \pi$$

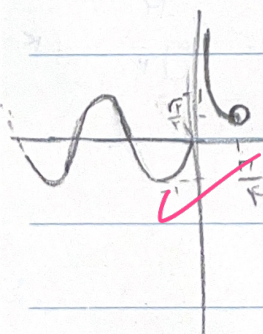


$$\text{b)} \quad p \cos\left(n + \frac{1}{p}\right) \pi + 1 \quad [-\pi, \pi] \quad - \sin^2 n \pi + 1$$

$$T = \frac{2\pi}{p} = 1$$

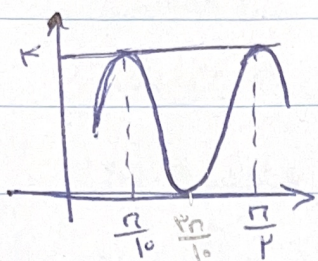


5- برآورد و $f(n) = \begin{cases} \cot n & ; 0 < n < \frac{\pi}{p} \\ \sin n & ; n \leq 0 \end{cases}$ بردار



$$[-1, +\infty)$$

$$c > 0 \quad \text{و} \quad \frac{bc}{a} \quad \text{حل} \quad f(n) = a + b \sin(cn) \cos(cn) \cos(\pi cn) - 1$$



$$f(n) = a + b \sin(cn) \cos(cn) \cos(\pi cn) - 1$$

$$\frac{\pi n}{|f|} = \frac{f_n}{10}$$

$$c = \frac{\omega}{F}$$

$$a + \frac{b}{F} \sin(\omega \cdot \frac{\pi n}{10}) = 0$$

$$a - \frac{b}{F} = 0$$

$$a = \frac{b}{F}$$

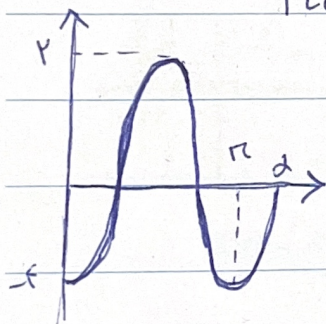
$$\pi a \sin(\omega \cdot \frac{\pi}{10}) = F$$

$$\pi a = F \quad a = \pi \quad b = 1$$

$$1 \times \frac{\omega}{F} = \omega$$

$| \tan \alpha |$ حل

$$f(n) = a \cos bn + c \quad \text{و} \quad -9$$



$$y_{\max} = |a| + c = 1$$

$$c = -1$$

$$y_{\min} = -|a| + c = -1$$

$$|a| = 1$$

$$\text{منه} \Rightarrow a = -1$$

$$y = -\cos b n - 1$$

$$\frac{\pi x}{|b|} = \pi \rightarrow |b| = 1$$

$$y = -\cos \pi n - 1 \quad (\alpha_{90}) \rightarrow -\cos \pi \alpha - 1 = 0 \quad \cos \pi \alpha = -\frac{1}{2}$$

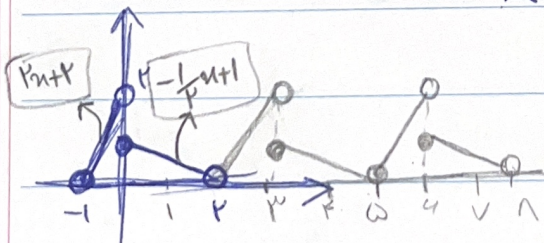
$$1 + \tan^2 \alpha = \frac{1}{\cos^2 \alpha} \Rightarrow \tan^2 \alpha = 9 - 1 = 8$$

$$\frac{1}{9} \cos^2 \alpha$$

$$| \tan \alpha | = \sqrt{8}$$

$$f(-\pi/10) \quad \text{حل}$$

$$\pi = \text{دوره تناوب} = 10$$



$$\text{منه} \Rightarrow -\cos \pi/10 + (1 \times \pi) = 1/10$$

$$\Rightarrow f(-\pi/10) = f(1/10) = -\frac{1}{\pi} \left(\frac{\pi}{\pi} \right) + \frac{\pi}{\pi} =$$

$$\frac{1}{\pi}$$