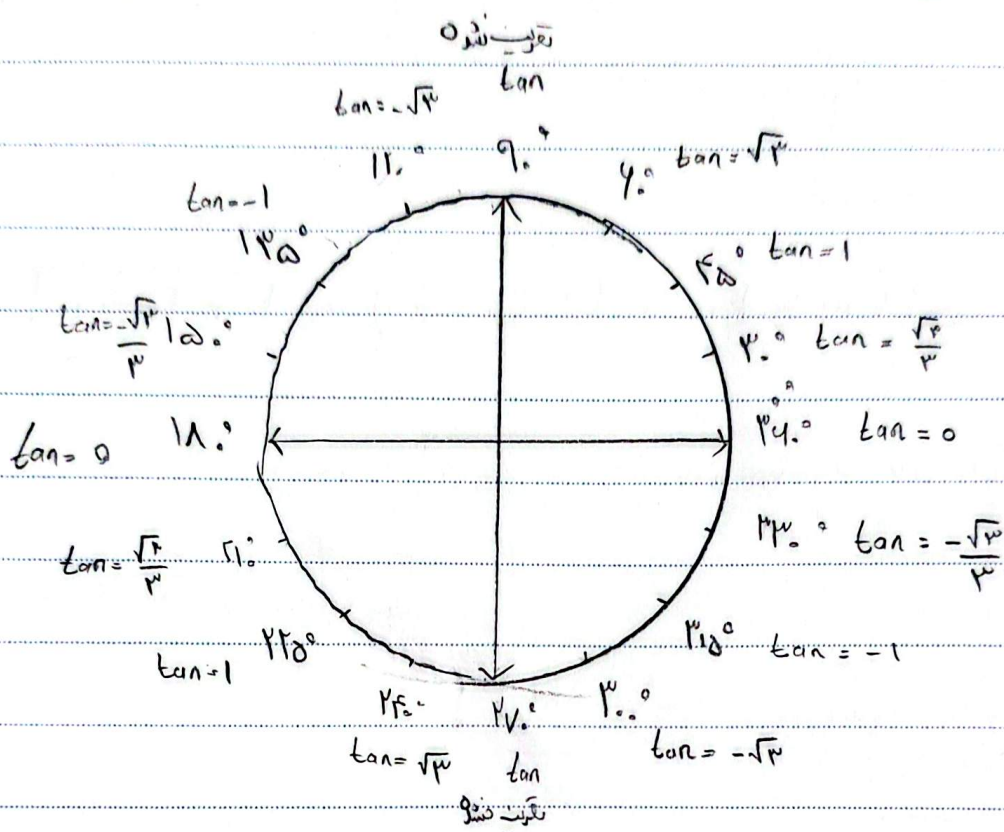


صدا راعی

یارم سر

کتاب حسابی ۲



الف) $\sin \frac{\pi}{4} + \cos \pi + 2 \tan \frac{3\pi}{2} = \frac{\sqrt{2}}{2} + (-1) + (-2)$

$$= \frac{\sqrt{2} - 9}{2}$$

ب) $-\cos \frac{5\pi}{4} + \sin \frac{\pi}{3} - 3 \sin \frac{\pi}{3} = \frac{\sqrt{2}}{2} + \frac{\sqrt{3}}{2} + 3 \frac{\sqrt{3}}{2}$

$$= \frac{\sqrt{2} + 5\sqrt{3}}{2}$$

— Arman —

$$2.) \cot \frac{\pi}{4} + 1 \cot \frac{\pi}{4} - 1 \tan \frac{\pi}{4} = \frac{-\sqrt{3}}{3} + \frac{\sqrt{3}}{3} + \frac{\sqrt{3}}{3}$$

$$= \frac{\sqrt{3}}{3}$$

$$3.) \cos(\sin \pi) + \sin(\pi \cos \frac{\pi}{4}) = 1 + 1 = 2$$

$$a^2 + 2a = \cancel{a^2 + 2a + 1} \rightarrow a^2 + a - 1 = 0$$

$$\downarrow$$

$$(a+1)(a-1) = 0 \rightarrow a = -1, 1$$

$$f(1) = f(a) = 1 + 2 = 3$$

$$|n+1| \geq \begin{cases} n+1 & n \leq -1 \\ n & n \geq 1 \end{cases}$$

$$\xrightarrow{n=-1} 1-b = a-1 \rightarrow a+b = 2$$

$$11) y = \frac{1}{x^2 - 2x}$$

$$x^2 - 2x \neq 0$$

$$D_2 = \mathbb{R} - \{0, 2\}$$

$$x^2(x-2) \neq 0$$

$$\frac{x}{x-2}$$

$$y = \frac{1}{x^2 + 2x + 2}$$

تھا اسے منحنی ۲-۱ است

$$D_n = \mathbb{R} - \{-1\}$$

(۶)

$$y = \sqrt{x-1} + \sqrt{x-2}$$

$$x-1 \geq 0$$

$$x \geq 1 \rightarrow x \geq 1, x \leq -1$$

$$x-2 \geq 0 \rightarrow x \geq 2$$

$$x \geq 2$$

$$D_n = [2, +\infty)$$

$$y = \frac{\sqrt{4-x}}{\sqrt{4x-3}} \rightarrow 4-x \geq 0 \rightarrow x \leq 4$$

$$\sqrt{4x-3} \rightarrow 4x-3 > 0 \rightarrow x > \frac{3}{4}$$

$$D_n = \left(\frac{3}{4}, 4\right]$$

$$y = \sqrt{12-a} + \sqrt{b-4}$$

میں فقط یہ عدد است ہیں ان عدد
راند
صنعتی اند عبارت زیر را

$$a = 12, b = 4$$

$$\frac{b}{a} = \frac{1}{3}$$

$$\text{ا) } \sqrt{y[n]-\varepsilon} \rightarrow y[n]-\varepsilon \geq 0$$

(9)

$$y[n] \geq \varepsilon$$

$$n \leq 2 \quad D_n = [r, +\infty)$$

$$\text{ب) } y = \sqrt{y[n]-\omega} \rightarrow y[n]-\omega \geq 0 \rightarrow [n] \geq r_0$$

$$[n] \geq r$$

$$D_n = [r, +\infty) \quad n \geq r$$

(10)

$$\text{ا) } y = \sqrt{\frac{n+1}{|n-3|}} + \sqrt{\frac{4-n}{n^2+2n+2}}$$

$$\frac{-1}{-1+3+3} = \frac{-1}{5}$$

$$\frac{4}{+1-2} = \frac{4}{-1}$$

$$[-1, 3) \cup (3, +\infty) \cap (-\infty, 4] = [-1, 4] - \{3\}$$

$$\text{ب) } y = \sqrt{[n]-\varepsilon} + \sqrt{r-[n]}$$

$$[n]-\varepsilon \geq 0 \rightarrow [n] \geq \varepsilon \quad r-[n] \geq 0$$

$$n \geq \varepsilon \quad n \leq r = \emptyset$$

Arman