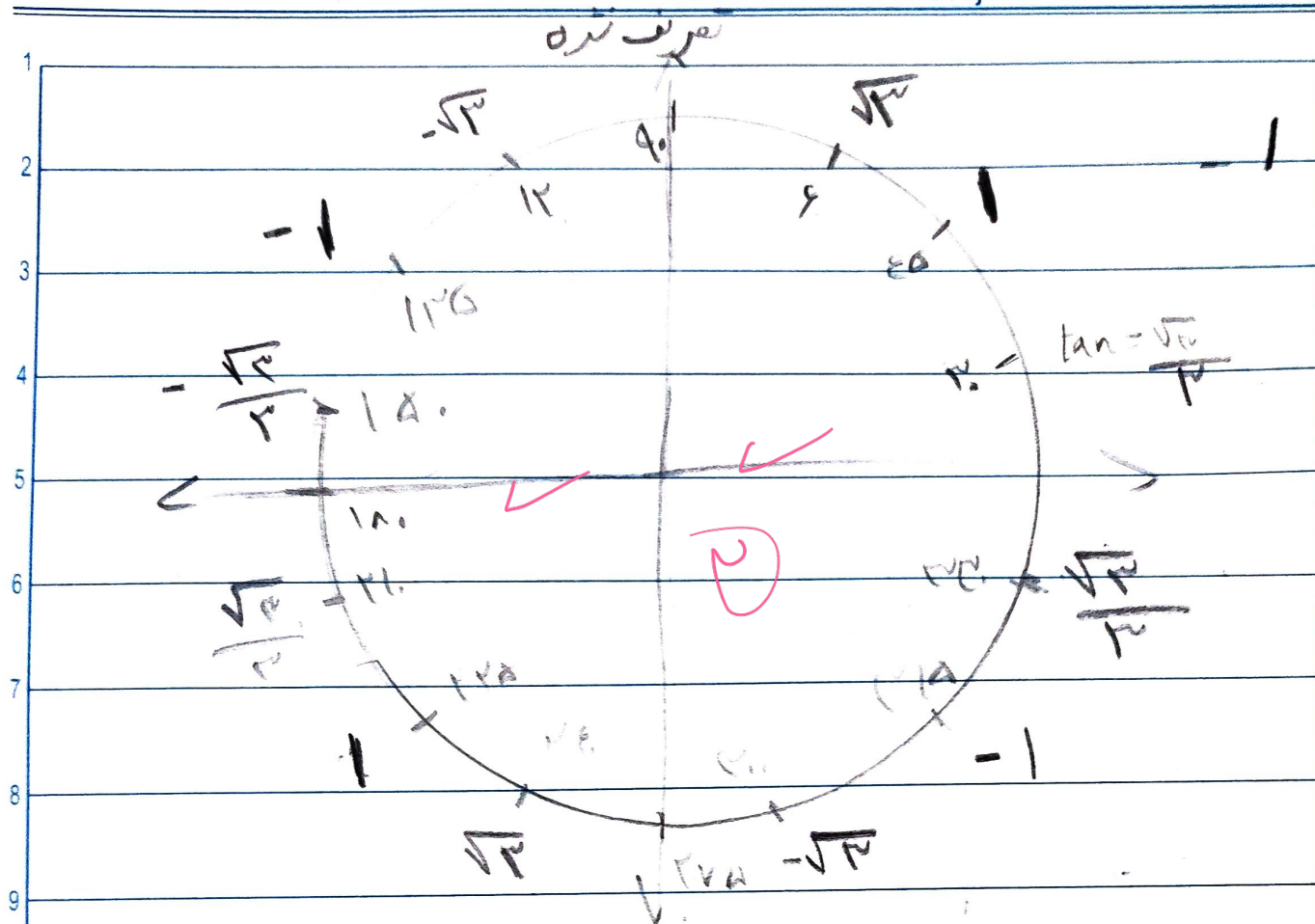


ہلایا توکلایا

/ /

Subject:



$$11 \quad \text{ex) } \frac{\sin x}{x} + \frac{\cos x}{-1} + \frac{x \tan x}{-1} = \frac{-1}{x} - x$$

$$- \cos \frac{4\pi}{5} + \sin \frac{4\pi}{5} - \frac{\cos 6\pi}{6} = \frac{1}{2}$$

17 $c) \cot \frac{\gamma\pi}{r} + r \cot \frac{\varepsilon\pi}{r} - r \tan \frac{\delta\pi}{\varepsilon} \rightarrow -\frac{\sqrt{r}}{r} +$

18 $r \left(\frac{\sqrt{r}}{r} \right) - r \left(-\frac{\sqrt{r}}{r} \right) = \frac{\varepsilon\sqrt{r}}{r}$

Arman

$$2) \cos(\sin \pi) + \sin(\pi \cos \frac{\pi}{2})$$

$$\cos(0) + \sin(\frac{\pi}{1}) = 1 + 1 = 2$$

$$f(x) = \begin{cases} x^2 + \epsilon x & x \geq a \\ \gamma x + a + \epsilon & x \leq a \end{cases}$$

$$\Rightarrow x = a \Rightarrow a^2 + \epsilon a = \gamma a + a + \epsilon$$

$$a^2 + a \cdot \epsilon = 0$$

$$\begin{cases} x^2 + \epsilon x \geq (\gamma + \epsilon)(a - 1) \Rightarrow a = -1, 1 \\ \gamma x + \epsilon & x \leq 1 \end{cases} \quad a = 1 \quad \epsilon > 0$$

$$f(1) = 1 \times 1 + \epsilon = 1 + \epsilon$$

$$f(x) = \begin{cases} x^2 - 1 & |x+1| \geq \gamma \\ a + \gamma x & -\gamma \leq x \leq -1 \end{cases}$$

$$|x+1| \geq \gamma \Rightarrow x+1 \geq \gamma \quad x \geq 1$$

$$x \leq -\gamma$$

$$x = -1 \rightarrow x^2 - b = 1 - b$$

$$a + x = a - 1$$

$$1 - b = a - 1 \rightarrow \boxed{a + b - 1} \quad \text{P}$$

$$\text{الف) } g = \frac{1}{x^2 - \varepsilon x^2} \rightarrow \frac{1}{x^2(x - \varepsilon)} \quad -a$$

$$\mathbb{R} - \{0, \varepsilon\}$$

$$\text{ب) } g = \frac{1}{x^2 + \varepsilon x^2 + x + \varepsilon} \rightarrow \frac{1}{(x + \varepsilon)(x^2 + \varepsilon)}$$

$$D_f = \mathbb{R} - \{-\varepsilon\}$$

$$\text{الف) } g = \sqrt{x-1} + \sqrt{x+1} \rightarrow x-1 \geq 0 : \varepsilon$$

$$x^2 - 1 \geq 0 \rightarrow x \geq 1 \quad x \leq -1$$

$$D_f = (-\infty, -1) \cup [1, +\infty)$$

$$y = \frac{\sqrt{x-r}}{\sqrt{x-r}}$$

$$x-r \geq 0 \quad r \geq x$$

$$x-r \geq 0 \quad (x > r)$$

$$D = \left(\frac{1}{r}, \infty\right)$$

$$x > \frac{1}{r}$$

$$y = \sqrt{x-a} + \sqrt{b-x}$$

$$b \geq x$$

$$x \geq a$$

$$I_1 = (-\infty, k] \quad I_2 = [k, +\infty)$$

$$I_1 = (-\infty, r], \quad I_2 = [r, +\infty)$$

$$b \geq x \Rightarrow b = x$$

$$x \geq a \quad a = \frac{1}{r}$$

$$\frac{b}{a} = \frac{x}{\frac{1}{r}} = \frac{1}{r}$$

$$y = \sqrt{\frac{x^2 - x - 2}{x^2 - (x+2) + 2}}$$

$$\Rightarrow \begin{cases} (x-r)(x+r) = 1 \\ (x-a)(x-b) \end{cases}$$

$$+ \frac{1}{x} - \frac{1}{x} + \frac{1}{x} + \frac{1}{x}$$

$$D_1 = (-\infty, r) \cup (r, \infty)$$

$$y = \frac{\sqrt{s - \frac{1}{n}}}{\sqrt{s - \frac{1}{n}}}$$

$$s - \frac{1}{n} \geq 0 \quad \frac{1}{n} \leq s$$

$$s - \frac{1}{n} \geq 0 \quad |n| > 1$$

$$n > \frac{1}{s}$$

$$D_f = \left(\frac{1}{s}, \infty \right)$$

$$y = \sqrt{s - \frac{1}{n}} = \sqrt{s - \frac{1}{n}} \quad \checkmark$$

$$b \geq \frac{1}{n}$$

$$s - \frac{1}{n} \geq 0$$

$$(-\infty, k] \text{ و } [k, +\infty) \text{ به دو طرف } k$$

$$(-\infty, r], [r, +\infty) (= \text{دو طرف } r)$$

$$b \geq \frac{1}{n} \Rightarrow b = \frac{1}{n}$$

$$s - \frac{1}{n} \geq 0 \quad a = \frac{1}{s}$$

$$\frac{b}{a} = \frac{\frac{1}{n}}{\frac{1}{s}} = \frac{s}{n}$$

$$y = \sqrt{\frac{s - \frac{1}{n}}{s - \frac{1}{n} + \frac{1}{n^2}}}$$

$$\Rightarrow \begin{cases} (n - \frac{1}{s})(n - \frac{1}{s}) = 1 \\ (n - \frac{1}{s})(n - \frac{1}{s}) = 1 \end{cases}$$

$$\frac{-\frac{1}{s} - \frac{1}{s}}{2} = \frac{-\frac{2}{s}}{2} = -\frac{1}{s}$$

$$D_f = (-\infty, r) \cup (r, s) \cup (s, +\infty)$$

$$\Rightarrow \sqrt{\frac{n^3 - 2n^2 - 4n + 4}{n^3 + 2n^2 - 4n - 4}} \Rightarrow \frac{(n-1)(n-2)(n+2)}{(n+1)(n+2)(n-2)}$$

$$\begin{array}{r} n^3 - 2n^2 - 4n + 4 \quad | \quad 9n-1 \\ n^3 - n^2 \\ \hline -n^2 - 4n + 4 \\ + n^2 - n \\ \hline -5n + 4 \\ 5n - 5 \\ \hline -1 \end{array} \quad \begin{array}{r} n^3 + 2n^2 - 4n - 4 \quad | \quad 9n-1 \\ n^3 - n^2 \\ \hline 3n^2 - 4n - 4 \\ + n^2 - n \\ \hline 4n^2 - 5n - 4 \\ + 4n^2 - 5n - 4 \\ \hline 8n^2 - 10n - 8 \end{array}$$

$$D_f = (-\infty, -1) \cup [-1, 1] \cup (1, 2) \cup [2, +\infty)$$

$$\forall \epsilon > 0 \quad y = \sqrt{x[n]} - \epsilon \Rightarrow x[n] \geq \epsilon \quad - a$$

$$x[n] \geq \epsilon \quad D_f = [\epsilon, +\infty)$$

$$\Rightarrow y = \sqrt{x[n]} - a \Rightarrow x[n] \geq a \quad x[n] \geq \frac{a}{x}$$

$$x[n] \geq \frac{a}{x} \Rightarrow D_f = [\frac{a}{x}, +\infty)$$

$$\frac{-1 \pm \sqrt{1+4}}{2}$$

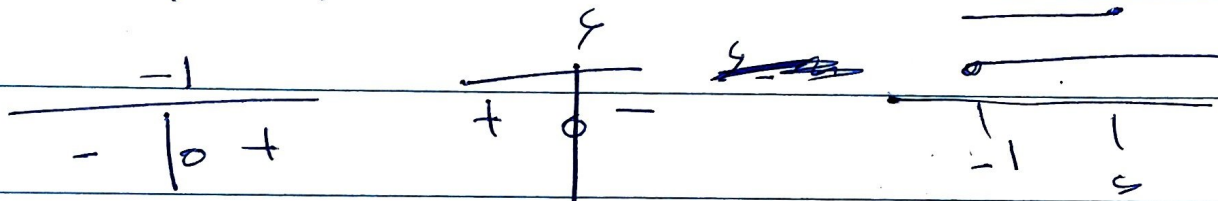
DATE

Subject:

$$\omega_1) \sqrt{\frac{n+1}{n-1}} + \sqrt{\frac{r-n}{n^2+2n+1}}$$

$$\lim_{n \rightarrow \infty}$$

$$-1, n \neq 1$$



Ⓟ

$$D_p [-1, \varepsilon] - \{1\}$$

$$\rightarrow y = \sqrt{[n] - \varepsilon} + \sqrt{r - [n]} \Rightarrow [n] \geq \varepsilon$$

$$[-\infty, r) \leftarrow r \geq [n]$$

$$D_f = \text{اشتراک ندارند}$$

$$[\varepsilon, +\infty)$$