

یا، رہم رفتہ

وقت جسے صفر پور
کند بزاری تو تم
صیہ صفر میں
۸-۱

$$\begin{aligned} & \frac{1}{x^2} - \frac{1}{x^2} \\ & - \frac{1}{x^2} + \frac{1}{x^2} \\ & - \frac{1}{x^2} + \frac{1}{x^2} \\ & - \frac{1}{x^2} + \frac{1}{x^2} \end{aligned}$$

$\uparrow n \leq 1$
 $\frac{n-1}{n} - \frac{1}{n} = \frac{n-2}{n}$

$$\begin{array}{c|ccc} & -x & -1 & \frac{1}{x} \\ \hline -\frac{1}{x} & 1 & -1 & -\frac{1}{x^2} \\ \frac{1}{x} & -1 & 1 & -\frac{1}{x} \\ -\frac{1}{x^2} & -\frac{1}{x} & \frac{1}{x} & 1 \end{array} \quad D = \{R - x, -1, \frac{1}{x}\}$$

$$\begin{array}{r} \frac{\cancel{x^2} + x - 6}{x-2} = x+3 \\ \underline{- (x-2)} \\ 3x - 6 \\ \underline{- (3x-6)} \\ 0 \end{array}$$

$$n \times n - 1$$

$$D = 1R - 8 - \frac{1}{2} = -\frac{1}{2}, -1$$

$$(n+1)(n+9)$$

$$n = \frac{1}{4} \quad \rightarrow \quad n = \frac{9}{4} \text{ s.m.}$$

$$\begin{array}{r} x^2 + 4x \\ \hline -2x^2 - 4x^2 + 4x - 1 \quad | \quad x-1 \\ \hline x^2 + x^2 \\ \hline -2x^2 + 4x \\ \hline -x^2 - x \end{array}$$

$$1R-9+12$$

$$D = \{x \mid x = \frac{\omega - t_k}{\gamma_k - \gamma}, k \in W\}$$

$$N = \frac{0.5W}{W - 1}$$

$$\frac{3x+3}{x+1}$$

$$\lambda = - \frac{+FW - 0}{FW - 0}$$

A hand-drawn diagram showing a zigzag line with arrows indicating the direction of movement. The line starts at a point on the left, moves up and to the right, then down and to the right, then up and to the right, and so on, creating a series of peaks and valleys. Arrows are placed along the line to show the path.

$$y = \sqrt{\frac{x + \sqrt{x^2 - 4x + 4}}{x^2 - 2x + 1}}$$

$$\frac{x^3 - 4x^2 + 4x - 1}{x^2 - x + 1} = x - 3 + \frac{3x - 1}{x^2 - x + 1}$$

$$\begin{array}{r} 1 \\ 2 \overline{) 2.00} \\ \underline{2} \\ 0 \\ 0 \end{array}$$

$$D = (-\infty, 4] \cup (1, \infty)$$

$$g_s = \frac{1}{n^2 - \omega(n-1) - \gamma n + \omega}$$

$$x > 1 \rightarrow x^2 - \cancel{x} + \cancel{x} - \cancel{x} + \cancel{x} = x^2 - \sqrt{x+1}.$$

$$(n-4)(n-5)$$

$$D = \mathbb{R} - \{-\infty, 0, \infty, \omega\}$$

$$= x^p + p x = x(x+p)$$

$$\chi^2 = 4 \quad \chi^2 = 3$$

~~$\mu_s = 0$ $\mu = -1$~~

$$y_s = \sqrt{\frac{r^2 - x^2}{r}}$$

$$Y \leftarrow X - X^2$$

Handwritten notes:

4-2-24
1/2 2/2

$$x^2 - 2x + 1 = (x-1)^2$$

$$D = \begin{bmatrix} 1 & 4 \end{bmatrix}$$

$$\begin{array}{r} x^2 + 2x + 1 \\ \times x^2 + 2x + 1 \\ \hline x^4 + 4x^3 + 6x^2 + 4x + 1 \end{array}$$

۱۰) الف سے سوال ۱۳ نوٹ

۴۱. سوال ۲ نوٹ:

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ا) $y = \sqrt{[x]-2}$ $[-x] = 2$
 $[x]-2 \geq 0$
 $[x] \geq 2$

$-x \rightarrow [2, +\infty) \rightarrow x \in (-\infty, -2]$

ب) $y = \frac{\omega x^2 + 4}{[x]^2 - 2[x] - 2}$ $[x] - 2 \neq 0$ $[x] = t$
 $t^2 - 2t - 2 \neq 0$
 $(t-3)(t+1) \neq 0$

$t \neq 3$ $t \neq -1$
 $[x] \neq 3$ $[x] \neq -1$
 $[3, +\infty)$ ~~$(-\infty, -1)$~~
 $(0, 0)$

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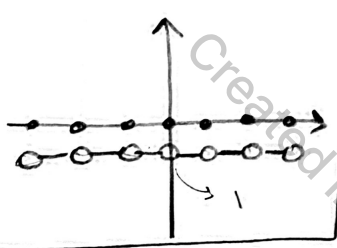
ا) $y = \sqrt{[x - \frac{1}{3}] + x[\frac{4}{3}]}$ $\rightarrow [x + \frac{4}{3} - 1] + [x + \frac{4}{3}]$

~~$x + \frac{4}{3} \geq 1$~~ $x \geq \frac{1}{3}$
 $2[x + \frac{4}{3}] - 1 \geq 0 \rightarrow [x + \frac{4}{3}] \geq \frac{1}{2}$
 $D = [\frac{1}{3}, +\infty)$

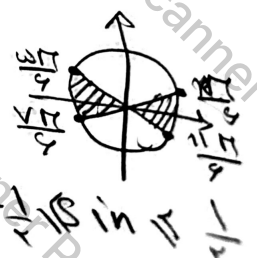
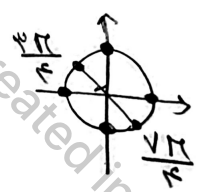
اولين عدد صحيح

ب) $y = \sqrt{[x - \frac{1}{3}] + [\frac{1}{3} - x]}$ $\rightarrow [a] + [-a]$ $a \in \mathbb{Z} = 0$
 $a \notin \mathbb{Z} = -1$

$D = \{x \mid x = k + \frac{1}{3}, k \in \mathbb{Z}\}$ $a \in \mathbb{Z} \rightarrow x - \frac{1}{3} \in \mathbb{Z}$
 $x \in \mathbb{Z} + \frac{1}{3}$



ا) $y = \frac{\cot a}{\tan a + 1}$ $\frac{k\pi}{\pi}$
 $\tan a = -1$
 $D = \mathbb{R} - \{\frac{k\pi}{\pi}, k\pi \neq \frac{\pi}{4}\}$



ب) $y = \sqrt{1 - 4 \sin^2 x}$ $1 - 4 \sin^2 x \geq 0$ $4 \sin^2 x \leq 1$ $\sin^2 x \leq \frac{1}{4}$
 $x = [k\pi - \frac{\pi}{6}, k\pi + \frac{\pi}{6}]$

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Q1) $y = \sqrt{1-x^2} \rightarrow y \sin^{-1} \rightarrow y \sin^{-1} \rightarrow \sin^{-1} \frac{1}{r}$
 $D = [rk + \frac{\pi}{2}, rk + \frac{3\pi}{2}]$ 
 Q2) $y = \sqrt{1-x^2} \rightarrow \cos \leq -\frac{1}{r}$
 $D = [rk + \frac{\pi}{2}, rk + \frac{3\pi}{2}]$ 
 $D = [R - (rk + \frac{\pi}{2}), rk + \frac{3\pi}{2}]$

Q3) $y = \arcsin(x^2 + rx + 1)$
 $-1 \leq x^2 + rx + 1 \leq 1$
 $\begin{cases} x^2 + rx + 1 \leq 1 \rightarrow x^2 + rx \leq 0 \\ x^2 + rx + 1 \geq -1 \rightarrow x^2 + rx + 2 \geq 0 \end{cases}$
 $x^2 + rx + 2 \geq 0$
 $\Delta = r^2 - 8 \rightarrow \frac{r^2}{4} - \frac{8}{4} = \frac{r^2 - 8}{4}$
 $\frac{-r \pm \sqrt{r^2 - 8}}{2}$ 
 $D = [-r, 0] \cup [1, 2]$

Q4) $\log(1 - \log x) > 0$
 $1 - \log x > 0 \rightarrow \log x < 1$
 $x < 10$
 $D = (0, 10)$
 Q5) $\log(1 - \log \frac{1}{x}) > 0$
 $1 - \log \frac{1}{x} > 0 \rightarrow \log \frac{1}{x} < 1$
 $\frac{1}{x} < 10$
 $x > \frac{1}{10}$
 $D = (\frac{1}{10}, +\infty)$