

الف) $\frac{x-1}{x} - \frac{x}{x-1} > 0$

$\frac{0}{-} \frac{1}{+} \frac{D=(0,1)}$

تجزیہ

ب) $\frac{-2}{-} \frac{-1}{+} \frac{0}{-} \frac{1}{+}$

جواب $D = I \cap II = [0, 2]$
 $\frac{(1/x - 9)(x^2 - x^4)}{x^4} \geq 0$
 $x = [0, 2] \cap I$

بہت زیادہ مشکل ہے

$x = \mathbb{R} \cap I$

$\sqrt{y+1} = -\sqrt{x-1} + 3$

$y+1 = (-\sqrt{x-1} + 3)^2$

$y = -\sqrt{x-1} - 3\sqrt{x-1} + 9 - 1$

$y = -4\sqrt{x-1} + 8$

$y = -4\sqrt{x-1} + 8$

$x-1 \geq 0$

$x \geq 1 \Rightarrow D = [1, +\infty)$

$x^2 - x - 2 > 0$

$\frac{-1}{+} \frac{2}{-} \rightarrow (-\infty, -1) \cup (2, +\infty)$

$x^2 - 1 \neq 0 \Rightarrow x \neq \pm 1 \rightarrow \frac{-1}{+} \frac{1}{-} \rightarrow (-\infty, -1) \cup (1, +\infty)$

$x^2 - 1 \neq 1 \Rightarrow x^2 \neq 2 \Rightarrow x \neq \pm \sqrt{2}$

$D = I \cap II - \{\pm \sqrt{2}\} \Rightarrow (-\infty, -1) \cup (1, +\infty)$

$-x^2 + ax + 3$

$\Delta = a^2 - 4 \times 1 \times 3$

$\Delta = a^2 - 12$

$f(x) - x \geq 0$

$$P f(a) = f(a) + a$$

$$1 f(a+1) = P a - 1 + a$$

$$P(a+1) (1)$$

$$1 a = -a$$

$$P(Va+1) = 1 f(a+1)$$

$$a = -\frac{q}{10} = -\frac{P}{10} \leftarrow a, \text{ hai}$$

$$\sqrt{P-\sqrt{P}} + \frac{1}{\sqrt{P-\sqrt{P}}} + P = \frac{(\sqrt{P-\sqrt{P}})^P + P\sqrt{P-\sqrt{P}}}{\sqrt{P-\sqrt{P}}} \quad I$$

$$\sqrt{P+\sqrt{P}} + \frac{1}{\sqrt{P+\sqrt{P}}} + P = \frac{(\sqrt{P+\sqrt{P}})^P + P\sqrt{P+\sqrt{P}}}{\sqrt{P+\sqrt{P}}} \quad II \quad \checkmark$$

$$II + \Sigma =$$

$$\begin{aligned} x \Rightarrow \sum_{k=1}^x P f(x) - P f(-x) &= P x^P - x \\ -x \Rightarrow \sum_{k=1}^x P f(-x) - P f(x) &= P x^P + x \end{aligned} \Rightarrow \begin{cases} P f(x) - 4 f(-x) = 1 x^P - P x \\ -4 f(x) + 9 f(-x) = 1 P x^P + P x \end{cases}$$

$$\begin{aligned} -d f(x) &= P x^{P-1} + x \\ f(x) &= -P x^P - \frac{1}{Q} x \end{aligned}$$

$$P f(0) = \cancel{P m} - 1$$

$$f(0) = \frac{P m}{P} - 1$$

$$y=1 \Rightarrow P f(1) - P f(-1) = 1 - m + P m - 1$$

$$x=P \Rightarrow f(P) - 9 f(1)$$

$$x \Rightarrow$$

$$ax+b + \frac{1}{x}a+b = \frac{P x^P - 1 P x + P}{x}$$

$$a x^P + P b x + a = P x^P - 1 P x + P$$

$$a = P$$

$$P b = -1 P$$

$$b = -1$$

$$\Rightarrow y = P x^P - 4$$

$$f(-1) = P + 4 = 9$$