

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

$$\frac{1}{x-1} = x+1 \quad x>1$$

$$(x-1)^r \rightarrow x^r - r x^{r-1} + \dots + (-1)^r$$

$$x^2 y''' \rightarrow x^2 y'''$$

$$\frac{1}{x-1} = (x-1)^{-1} \rightarrow (x-1)^{-1} \rightarrow x^{-1} \cdot (1+x)^{-1} = \sum_{i=0}^{\infty} (-1)^i x^{-1-i}$$

مَدَائِدُ رَسْمِيَّةٌ
عَبْدُكَ

(b) $\frac{x-1}{x} < x \rightarrow x-1 < x^2 \Rightarrow -1 < x^2 \Rightarrow (\frac{1}{x}, +\infty)$

$$\frac{x-1}{x} < 1 \rightarrow x-1 < x \rightarrow -1 < 0 \Rightarrow \left(\frac{1}{x}\right) \gg$$

$$\begin{aligned} \Rightarrow \frac{x-r}{p_{x+1}} < 1 \rightarrow x-r < p_{x+1} \rightarrow p_{x+1} < 1 \rightarrow x < \frac{1}{p_{x+1}} \\ \frac{x-r}{p_{x+1}} > 1 \rightarrow x-r > p_{x+1} \rightarrow x < -r \end{aligned} \Rightarrow (-\infty, \frac{1}{p_{x+1}}) \cup$$

③ $x^T(x+y) \rightarrow x^T(x+y) \rightarrow x^T(x+y)$.

$$\frac{-r_p}{(x-r)(x+r)} \rightarrow \frac{1}{x-r} - \frac{1}{x+r}$$

$$x^r - x - y \rightarrow x^r + x + y \pmod{\Delta \mathbb{C}_0} \quad \text{Ergodic}$$

$$|\beta - \alpha| \sqrt{3} \rightarrow \alpha \sqrt{2} \sqrt{3} \rightarrow \alpha \sqrt{6}$$

	-1	0	1	
③				
$-x - 1 + 1x + 1x$	$x + 1 + 1x + \frac{1}{2}x$	$x + 1 - 1x + 1x$	$x + 1 - 1x + x - 1$	max: 1
1	$1x + 1x$	$-1x + 1x$	-1	min: -1

$$ma + mi = r - 1 \quad r$$

Subject:

Year:

Month:

Date:



Sa	Su	Mo	Tu	We	Th	Fr
----	----	----	----	----	----	----

③ $y: |\frac{1}{p}x| - 2 \quad y': |\frac{1}{p}x + \epsilon| - 1$

$$|\frac{1}{p}x| - 2: |\frac{1}{p}x + \epsilon| - 1 \rightarrow \frac{1}{p}x + 1 + \epsilon a: \frac{1}{p}x + 1 - 2: |\frac{1}{p}x|$$

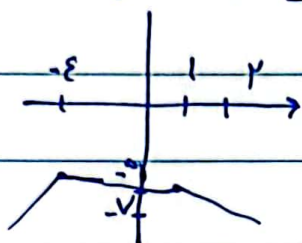
$$\epsilon x + 1 + \epsilon a = -2: |\frac{1}{p}x| \rightarrow -2x - \frac{10}{p}: |\frac{1}{p}x|$$

$$\frac{1}{p}x = -2x - \frac{10}{p} \rightarrow x = -4$$

$$\frac{1}{p}x = 2x + \frac{10}{p} \rightarrow x = -4$$

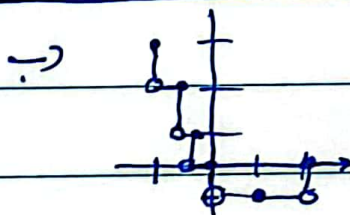
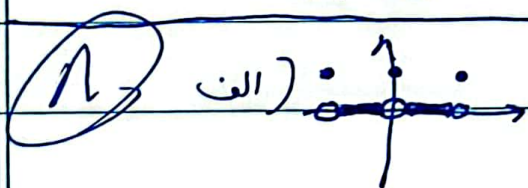
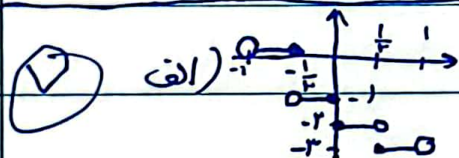
1/1
Girelele

④ ان $f(x) = [1-x] - [x+\epsilon]$ $\frac{-\epsilon}{x+\epsilon} \mid -\epsilon \mid -2x-2$



$$\Rightarrow R = [a \in (-\infty, -4) \mid x \in \mathbb{Z}]$$

ب) $f(x) = \frac{1}{x} - [\frac{x+1}{x}] \rightarrow \frac{1}{x} - [\frac{1}{x}] + 1$ $R = [1, 2]$
 $p \rightarrow 0 \leq p < 1$



⑦ $a \in [b], \epsilon, 2 \quad b \in [a], 2, \epsilon$

$$\hookrightarrow a \in [0, 2]$$

$$\hookrightarrow b \in [0, \epsilon]$$

$$\rightarrow [b] = 0 \rightarrow a \in [0, 2] \cup [2, 4]$$

$$[b] = 2 \rightarrow a \in [2, 4] \cup [4, 6]$$

$$[b] = 3 \rightarrow a \in [4, 6] \cup [6, 8]$$

$$b \in [3, \epsilon]$$

$$a \in [1, 2]$$

Rali

