

[illegible]

$$\left| \frac{yx-1}{x} \right| < \epsilon \rightarrow -\epsilon < \frac{yx-1}{x} < \epsilon \rightarrow -\epsilon < y - \frac{1}{x} < \epsilon$$

$$| \frac{x-2}{x+1} | > 1 \quad \left\{ \begin{array}{l} \frac{x-2}{x+1} > 1 \rightarrow \frac{x-2-x-1}{x+1} = \frac{-x-3}{x+1} > 0 \quad \frac{-3}{-1+0} = \frac{-3}{-1} = 3 \\ \frac{x-2}{x+1} < -1 \rightarrow \frac{x-2+x+1}{x+1} = \frac{x-1}{x+1} < 0 \quad \frac{-1}{-1+1} = \frac{-1}{0} = -\infty \end{array} \right. \quad \left\{ \begin{array}{l} -3 < x < \frac{1}{2} \\ (-3, \frac{1}{2}) \cup (-\frac{1}{2}, 3) \end{array} \right.$$

$$x^r < |x+4| \rightarrow |x-\alpha| < \beta \rightarrow \boxed{\alpha = -1/r}$$

$$\left\{ \begin{array}{l} x+y > x^y \rightarrow \Rightarrow x^y - x - y \rightarrow (x-y)(x+y) \rightarrow \frac{-2}{1} - \frac{3}{1} + \rightarrow (-2, 4) \\ x+y < -x^y \rightarrow x^y + x + y < 0 \end{array} \right.$$

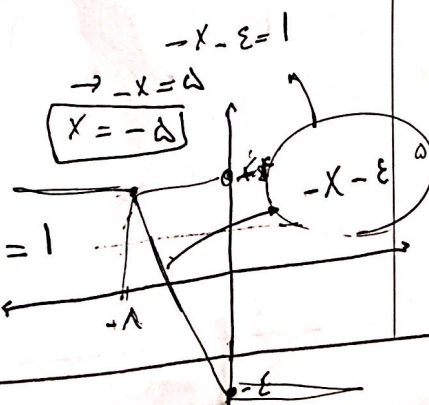
$$y = |x+1| - |x| + |x-2| \begin{cases} \max = 10 \\ \min = -1 \end{cases}$$

C_1 { $(\underline{min})$ $\min = -1$
 $X = Y \rightarrow W - E = (-1) \rightarrow \min$
 $X = -1 \rightarrow -Y + W \rightarrow (1)$
 $X = 0 \rightarrow 1 + Y = (W) \rightarrow \max$
} $\rightarrow (+Y) \rightarrow \{ \dots \}$

$$y = \left| \frac{1}{4}x \right| - 1 \longrightarrow \left| \frac{1}{4}x + 1 \right| - 1$$

$$\rightarrow \left| \frac{1}{p} x \right|^r = \left| \frac{1}{p} x + \varepsilon \right| - 1$$

c) $\left| \frac{1}{p} x \right| + \left| \frac{1}{p} x + z \right| = 1$



$$f(x) = [1-x-|x+F|]$$

$$x \geq 1 \rightarrow [(x-1) - (x+\varepsilon)] = -\Delta$$

$$-1 < x < 1 \rightarrow 1-x-x-\varepsilon = [-2x-\varepsilon] \rightarrow [-2x]+\varepsilon$$

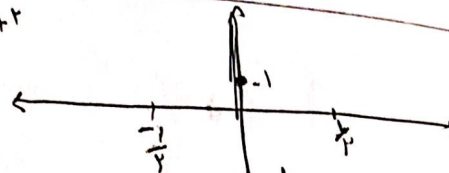
$$x < -1 \rightarrow [(1-x) + \varepsilon + x] = \Delta$$

$$f(x) = \frac{1}{x} - [1 + \frac{1}{x}] \rightarrow \frac{1}{x} - [\frac{1}{x}] + 1$$

$$R_f = [1, 2)$$

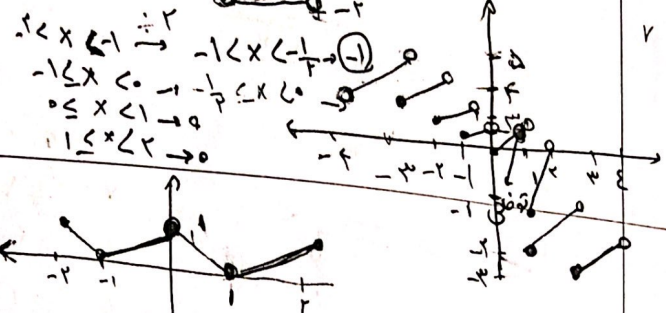
$$y = [-2x] - 1 \rightarrow x \in (-1, 1)$$

$$-1 < x < 0 \xrightarrow{x \rightarrow 0} 0 < -2x < 2$$

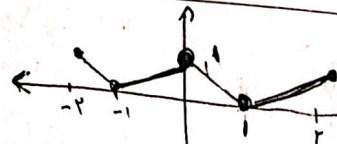


$$y = x - 2[\frac{x}{2}]$$

$$x \in (-2, 2)$$

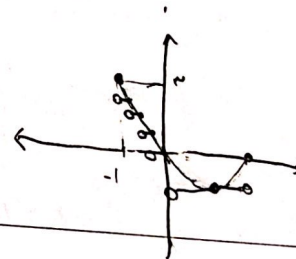


$$y = [|x| - 1] \quad x \in [-2, 2]$$



$$y = [x^2 - 2x] \quad x \in [-1, 2]$$

$$\begin{aligned} -1 &\leq x < 0 \\ 0 &\leq x < 1 \\ 1 &\leq x < 2 \\ 0 &\leftarrow x = 2 \end{aligned}$$



$$\begin{aligned} a + [b] &= \varepsilon/2 \rightarrow [a] + [b] = \varepsilon \\ b - [a] &= 2/\varepsilon \rightarrow [b] - [a] = 2 \end{aligned}$$

$$\begin{aligned} 2[b] &= 4 \\ [b] &= 2 \rightarrow 2/\varepsilon \\ [a] &= 1 \rightarrow 1/\varepsilon \end{aligned}$$

$$\rightarrow a + b = 2/\varepsilon + 1/\varepsilon = [3/\varepsilon]$$

$$(1+\sqrt{2})^9 + (1-\sqrt{2})^9 = 19\lambda$$

$$\text{ans} = (1+\sqrt{2})^9 \quad [(1+\sqrt{2})^9] = 19\lambda$$

$$(1+\sqrt{2})^9 = 1 + 9\sqrt{2} + 36 + 72\sqrt{2} + 54 + 108\sqrt{2} + 81 + 108\sqrt{2} + 54 + 108\sqrt{2} + 1$$

$$(1+\sqrt{2})^9 = 1 + 9\sqrt{2} + 36 + 72\sqrt{2} + 54 + 108\sqrt{2} + 81 + 108\sqrt{2} + 54 + 108\sqrt{2} + 1$$