

$$\frac{1}{n-1} = |n-1|$$

$$\frac{-1}{n-1} = n-1 \Rightarrow n^2 - 2n + 1 + 1 = 0$$

$$\Delta < 0 \quad \times$$

$$\frac{1}{n-1} = n-1 \Rightarrow n^2 - 2n + 1 - 1 = 0$$

$$n(n-2) = 0$$

$$n = 0 \quad \times$$

$$\boxed{n=2} \quad \checkmark$$

$$\text{الف) } \left| \frac{2n-1}{n} \right| < 2 \xrightarrow{n \neq 0} -2 < \frac{2n-1}{n} < 2$$

$$\begin{aligned} -2n < 2n-1 < 2n &\rightarrow 2n-1 > 0 \\ 2n < 2n-1 < -2n &\rightarrow 2n-1 > -2n \end{aligned}$$

$$I \cap II \Rightarrow n \in \left(\frac{1}{2}, +\infty \right)$$

$$\text{ب) } \left| \frac{n-2}{2n+1} \right| > 1 \quad \frac{n-2}{2n+1} > 1 \rightarrow \frac{n-2}{2n+1} > 0$$

$$\frac{n-2}{2n+1} < -1 \quad \frac{2n-1}{2n+1} < 0 \quad I \cap II \rightarrow n = \left(-2, \frac{1}{2} \right) \cup \left(\frac{1}{2}, +\infty \right)$$

$$\begin{aligned} n^2 < |n+2| \\ -n-2 < n^2 < n+2 \end{aligned} \rightarrow \begin{aligned} n^2 - n - 2 < 0 \\ (n+2)(n-2) \end{aligned}$$

$$n^2 + n + 2 > 0$$

$$\Delta < 0$$

$$|n-\alpha| < \beta$$

$$\left| n - \frac{1}{2} \right| < \frac{d}{2}$$

$$\boxed{\alpha = \frac{1}{2}}$$

$$\beta = \frac{d}{2}$$

$$n = [-2, 2]$$

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

$$\leftarrow n - \frac{1}{2} = \frac{d}{2}$$

$$|n-1| - |2n| > |n-2|$$

$$-1 + 2 = 1$$

$$n \geq 2 \quad n+1 - 2n + n-2 = -1 \rightarrow \min$$

$$0 < n < 2 \quad n+1 - 2n - n+2 = -2n+3 \rightarrow \frac{3-2n}{2}$$

$$-1 \leq n < 0 \quad n+1 + 2n - n+2 = 2n+3 \leq 2 \rightarrow \max$$

$$n < -1 \quad -n-1 + 2n - n+2 = 1$$

$$\left| \frac{1}{2}n \right| - 2$$

$$\left| \frac{1}{2}n+2 \right| - 2$$

$$\left| \frac{1}{2}n+2 \right| - 2+1 \rightarrow \text{غیر قابل حل}$$

$$\left| \frac{1}{2}n+2 \right| - 2 = \left| \frac{1}{2}n \right| - 2$$

$$|n+4| + 2 = 2 \left| \frac{1}{2}n \right|$$

$$n^2 + 4n + 8 + 2 = n^2$$

$$2n+3=0$$

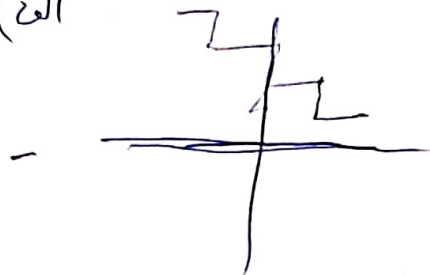
$$2n+3=0$$

$$\boxed{n = -\frac{3}{2}}$$

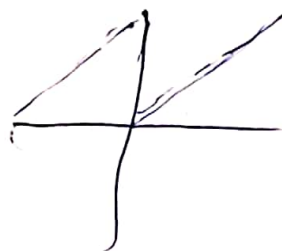
$$\begin{aligned} [1-m] &= [m+r] \quad m \geq 1 \quad m \rightarrow Rf(m) = a \\ -r & < m < 1 \quad m \rightarrow Rf(m) = -rm - r \quad \begin{cases} m=-r & = \delta \\ m=1 & = -\delta \end{cases} \Rightarrow (-\delta, \delta) \\ m < -r \quad m \rightarrow Rf(m) = -\delta \quad [n][n][n][n] &= [-\delta, +\delta] \end{aligned}$$

$$\begin{aligned} \frac{1}{n} &= \left[\frac{m}{n} \right] \quad \left[\frac{1}{n} \right] + 1 \quad m \rightarrow \frac{1}{n} = \left[\frac{1}{n} \right] + 1 \\ 0 &\leq -\left[\frac{1}{n} \right] + \frac{1}{n} < 1 \quad m \rightarrow Rf = \left[\frac{1}{n}, 1 \right] \end{aligned}$$

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$$\begin{aligned} a + [b] &= r, r \quad [a] + [b] = r \\ b - [a] &= r, r \quad \underline{[b] - [a] = r} \\ r[b] &= r \quad [b] = r \quad [a] = 1 \\ b - 1 &= r, r \\ b = r, r \quad m \rightarrow a = 1, r \quad m \rightarrow \boxed{a + b = r, r} \end{aligned}$$

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$$\begin{aligned} 1 - \sqrt{2} &= -(\sqrt{2} - 1) \quad |1 - \sqrt{2}| < 1 \\ (1 - \sqrt{2})(1 + \sqrt{2}) &= -1 \quad (1 - \sqrt{2})^4 = \frac{\delta}{1000} \\ ([1 + \sqrt{2}]^4) &= [19\sqrt{2}, -] \quad \boxed{19\sqrt{2}} \quad (1 + \sqrt{2})^4 + (1 - \sqrt{2})^4 = 19\sqrt{2} \\ \leftarrow (1 + \sqrt{2})^4 &= 19\sqrt{2} - 0.100\delta \end{aligned}$$

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