

دینا سقایی

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$$-2 \leq \frac{x_{n+1} + 2}{5} \leq 4 \rightarrow -10 \leq x_{n+1} + 2 \leq 20 \rightarrow -12 \leq x_{n+1} \leq 18$$

$$-2 \leq x_n \leq 2 \rightarrow -9 \leq x_{n-1} \leq 9$$

$$D_{f(n)} = [-1, 7]$$

$$-1 \leq x_n \leq 9 \rightarrow -2 \leq x_{n+1} \leq 9$$

$$-2 \leq x_{n+1} \leq 10 \rightarrow -1 \leq \frac{x_{n+1} + 1}{2} \leq 5 \rightarrow D_{f(n)} = [-1, 5]$$

$$-1 \leq 2 - 5x_n \leq 5 \rightarrow -2 \leq -5x_n \leq 7 \rightarrow -\frac{2}{5} \leq x_n \leq \frac{7}{5}$$

$$D_{f(n)} = \left[-\frac{2}{5}, \frac{7}{5}\right]$$

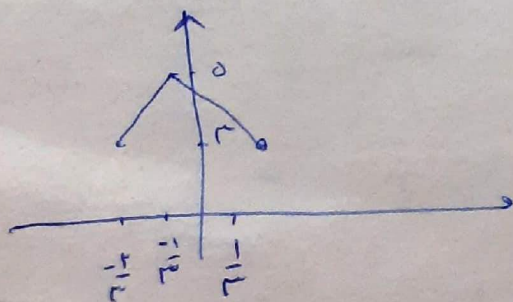
$$-1 \leq x_{n+1} \leq 2 \rightarrow -2 \leq x_n \leq 1$$

$$-\frac{2}{3} \leq x_n \leq \frac{1}{3} \rightarrow D_{f(n)} = \left[-\frac{2}{3}, \frac{1}{3}\right]$$

$$R_{f'} = [2, 5]$$

$$\begin{vmatrix} 1 & 1 \\ 1 & 1 \end{vmatrix}$$

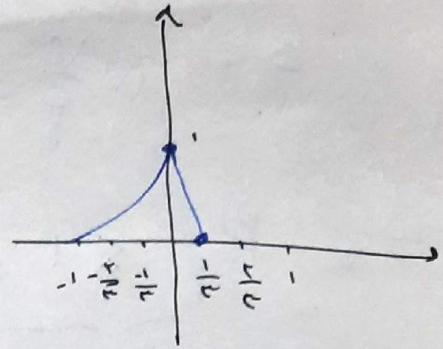
$$x_{n+1} = 0 \rightarrow x_n = -\frac{1}{5}$$



$$1 \leq r - r_n \leq 0 \rightarrow -1 \leq -r_n \leq r \rightarrow -1 \leq r_n \leq \frac{1}{r}$$

$$\begin{vmatrix} r \\ r \end{vmatrix} \rightarrow \begin{vmatrix} r - r_n = r \\ 1 \end{vmatrix} \rightarrow n = 0$$

$$\begin{vmatrix} 0 \\ 0 \end{vmatrix} \rightarrow \begin{vmatrix} r - r_n > 1 \\ 0 \end{vmatrix} \rightarrow n = \frac{1}{r}$$



$$\begin{vmatrix} -\frac{r}{a} \\ \frac{r}{a} \end{vmatrix} = \frac{r}{a}$$

$$-\frac{1}{r} + \frac{9}{r_0} + \frac{r}{a} \times \frac{r}{a} + 1 = \frac{-r + 4 + r_0}{r_0} = \frac{-r + 1}{r_0}$$

-4

$$A \begin{vmatrix} \frac{r}{a} \\ 0 \\ \frac{r}{a} \end{vmatrix} \rightarrow A' \begin{vmatrix} 2 \\ r \end{vmatrix}$$

$$(n - \varepsilon)^r = +9 \rightarrow n - \varepsilon = 9 \rightarrow n = 9 + \varepsilon$$

$$g(n) = -\frac{1}{r}(n - h)^r + k = -\frac{1}{r}(n - \varepsilon)^r + r = 0$$

$$\begin{vmatrix} 1 \\ \varepsilon \end{vmatrix} \rightarrow \begin{vmatrix} r_n + r > 1 \\ -v = \beta \end{vmatrix} \rightarrow n = -\frac{1}{r} = 4$$

= 4

$$\alpha \beta = +\frac{v}{r}$$

$$a \leq x - 1 \leq r \rightarrow a + 1 \leq r_n \leq r$$

-1

$$-1 \leq x + 1 < b \rightarrow -r \leq n < b - 1$$

$$b - 1 = 0 \rightarrow b = 1$$

$$a + 1 = -r \rightarrow a = -r$$

$$a - b = -r - 1 = -1$$

$$\textcircled{*} -\sqrt{r} \leq n \leq 0 \Rightarrow -\frac{r+1}{r} \leq \frac{n}{r} + 1 \leq \frac{1}{r} + 1$$

$$-\frac{1}{r} \leq \frac{n}{r} + 1 \leq \frac{1}{r}$$

$$R_{f(n)} = [-1, 1]$$

$$-2 \leq R_f \leq 1 \rightarrow 0 \leq |R_f| \leq 2 \rightarrow 0 \leq \sqrt{|R_f|} \leq \sqrt{2}$$

$$\textcircled{*} D_{f'} = \left[-\frac{1}{r}, \frac{1}{r}\right]$$

$$g(n) = \left| \frac{(n-r)+1}{r(n-r)+1} \right| + 1$$

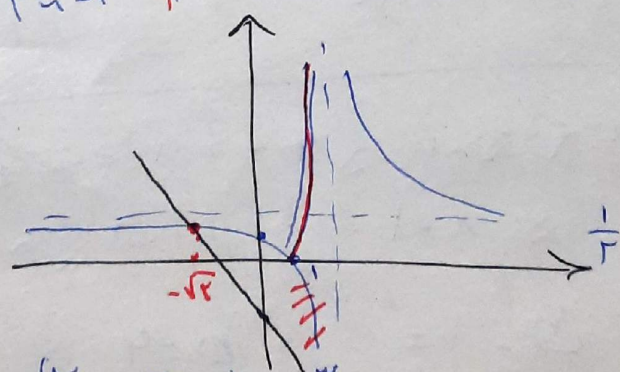
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$$g(n) = \left| \frac{n-1}{rn-r} \right| + 1 < -n$$

$$\left| \frac{n-1}{rn-r} \right| < -n-1$$

$$\frac{1}{r} + 1 < -n-1$$

$$\frac{1}{r} + 1 < -n-1$$



$$x < -\sqrt{r}$$

$$-(n-1) = (rn-r)/(n-r)$$

$$\rightarrow -n+1 = rn-r \rightarrow rn-r = -n+1 \rightarrow n^2-r=0$$

$$n = \pm \sqrt{r}$$