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$$Df = [-2, 1] \rightarrow -2 \leq \frac{3u+2}{5} \leq +1$$

$$\Rightarrow -10 \leq 3u+2 \leq 5 \rightarrow -12 \leq 3u \leq 3 \xrightarrow{\div 3} \boxed{-4 \leq u \leq +1} \quad (1)$$

$$\rightarrow \boxed{u \in [-4, +1]}$$

$$-2 \leq u \leq +1 \Rightarrow -4 \leq 3u \leq +3 \rightarrow \boxed{-1 \leq 3u-2 \leq +1} \quad (2)$$

$$\rightarrow \boxed{3u-2 \in [-1, +1]}$$

$$\rightarrow 1 \leq u \leq +2 \rightarrow -2 \leq 3u+1 \leq 7 \quad (3)$$

$$\Rightarrow -1 \leq \frac{3u+1}{2} \leq 3 \rightarrow -1 \leq 2-3u \leq 6 \rightarrow -3 \leq -3u \leq 4$$

$$\Rightarrow \boxed{\frac{-3}{-3} \leq u \leq \frac{4}{-3}} \rightarrow u \in \left(\frac{-4}{3}, \frac{1}{3}\right)$$

$$Df \in [-1, +2] \rightarrow -1 \leq 3u+1 \leq 2 \quad (4)$$

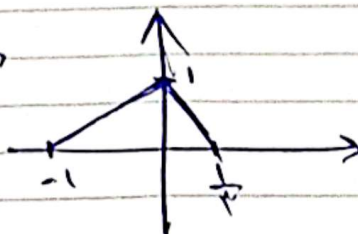
$$\Rightarrow -2 \leq 3u \leq +1 \rightarrow \frac{-2}{3} \leq u \leq \frac{+1}{3}$$

$$\rightarrow f' = 2f(3u+1)+3$$



$$Df \in [-1, 0] \rightarrow 1 \leq 2-3u \leq 0 \rightarrow -1 \leq -3u \leq +3 \quad (5)$$

$$\xrightarrow{\div -3} \frac{+1}{3} \geq u \geq -1 \rightarrow$$



احمد بن محمد بن عبد الوهاب

سه شنبه

٢١ جمادى الثاني ١٤٤٨

1 Dec. 2026

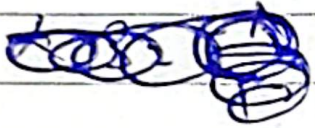
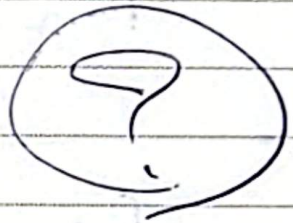
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$$x_0 = \frac{2}{5} + \sqrt{\frac{2}{5} - 2\left(-\frac{1}{5}\right)(1)}$$

$$y = -\frac{1}{5}x^2 + \frac{2}{5}x + 1 \rightarrow x_5 = \frac{-\frac{2}{5}}{-\frac{1}{5}} = \frac{2}{5} \rightarrow y_5 = \frac{21}{25}$$

$$\left(\frac{10}{5}, \frac{21}{25}\right) \rightarrow \left(\frac{10}{5}, \frac{21}{25}\right) \rightarrow \Delta x_5 \rightarrow +\frac{10}{5}$$

$$\Delta y_5 \rightarrow +\frac{21}{25}$$



$$2 \neq 1 \quad 3 \neq 2 \quad (1, 2)$$

$$x \Rightarrow \left(-\frac{1}{5}, 1\right) \rightarrow \alpha \beta = -\frac{1}{5}$$

امید حسین یزدانزاد (دوازدهم) به A کد پی

(A)

$$f \Rightarrow a < n-1 \leq 4 \rightarrow a+1 < n \leq 5$$

$$g \Rightarrow -1 \leq n+1 < b \rightarrow -2 \leq n < b-1$$

$$\left. \begin{array}{l} (-2, 5) \Rightarrow b-1 \geq 5 \rightarrow b = 6 \\ \hookrightarrow a+1 = -2 \rightarrow a = -3 \end{array} \right\} \rightarrow a - b = -3 - 6 = -9$$

$$Df_1 = Df_2 = [-2, 5]$$

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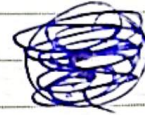
$$Rf \rightarrow [-2, 5] \rightarrow [-5, 1] \xrightarrow{\text{قرینگی}} [5, 5]$$

$$f(n) = \left| \frac{n+1}{2n+1} \right|$$

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$$\rightarrow g(n) = \left| \frac{(n-2)+1}{2(n-2)+1} \right| + 1 = \left| \frac{n-1}{2n-3} \right| + 1$$

$$\frac{n-2}{2n-3} + 1 = \frac{n-2+2n-3}{2n-3} = \frac{3n-5}{2n-3}$$



$$\rightarrow \frac{3n-5}{2n-3} + n = \frac{3n^2-5n}{2n-3} \rightarrow \frac{-\sqrt{2} + \sqrt{2}}{2} + \frac{3}{2}$$

$$\rightarrow \frac{n-2}{2n-3} + n = \frac{3n^2-5n}{2n-3} \rightarrow \frac{1-\sqrt{5}}{2} + \frac{3}{2} = \frac{4-\sqrt{5}}{2}$$

$$\rightarrow \frac{3n-5}{2n-3} + n = \frac{3n^2-5n}{2n-3} \rightarrow \frac{-\sqrt{2} + \sqrt{2}}{2} + \frac{3}{2}$$

$$\Rightarrow \text{جواب: } (-\infty, 9-\sqrt{2}) \cup (9+\sqrt{2}, \frac{3}{2}) \cup (-\infty, \frac{1-\sqrt{5}}{2}) \cup (\frac{3}{2}, \frac{4+\sqrt{5}}{2})$$