

15, 5

تکلیف

روزنامه

غذای سالم

$$-2 \leq \frac{3n+2}{5} \leq 2 \xrightarrow{\times 5} -10 \leq 3n+2 \leq 10 \xrightarrow{-2} -12 \leq 3n \leq 8 \xrightarrow{\div 3} -4 \leq n \leq 2 \frac{2}{3} \quad D = [-4, 2] \quad (2) -1$$

$$n = -2 \rightarrow f(-2) \xrightarrow{\text{تعیین}} n = 3 \rightarrow f(3) \quad D = [-2, 3] \quad (2) -2$$

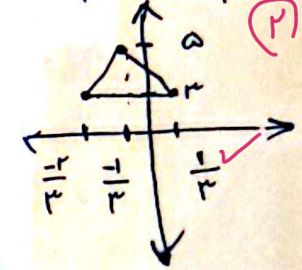
$$n = -1 \rightarrow f(-1) \quad n = 3 \rightarrow f(3) \quad Df = [-1, 3] \quad (2) -3$$

$$-1 \leq 3n \leq 0 \quad -2 \leq -5n \leq 2 \quad \frac{-2}{5} \leq n \leq \frac{2}{5} \quad D = \left(-\frac{2}{5}, \frac{2}{5}\right) \quad (2) -4$$

$$\text{معمولی} \quad y = \frac{1}{\mu} (n-4)^2 + 3 \xrightarrow{y=0} (n-4)^2 = 9 \quad (2) -5$$

$$|n-4| = 3 \Rightarrow n = 1, n = 7$$

$$(-1, 0) \Rightarrow y' = 2(n+1) + 3 \quad x'_1 = \frac{-1-1}{\mu} = \frac{-2}{\mu} \quad y' = 2 \times 0 + 3 = 3 \quad \left(\frac{2}{\mu}, 3\right), \left(\frac{1}{\mu}, 3\right), \left(-\frac{1}{\mu}, 0\right) \quad (2)$$

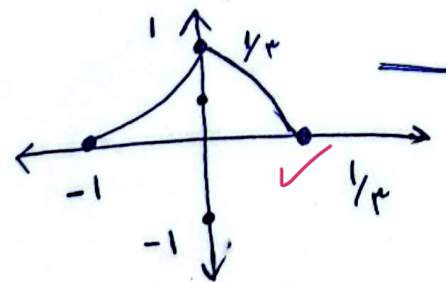


$$(2, 0) \Rightarrow x'_2 = \frac{2-1}{\mu} = \frac{1}{\mu} \quad y'_2 = 2 \times 0 + 3 = 3$$

$$(0, 1) \Rightarrow x'_3 = \frac{0-1}{\mu} = \frac{-1}{\mu} \quad y'_3 = 2 \times 1 + 3 = 5$$

$$\text{عکس} \quad \frac{1}{\mu} f(2-3n) \quad y' = \frac{y}{\mu}, \quad n' = \frac{-n+4}{\mu} \quad (2) -6$$

$$n', y'_1 = \left(\frac{1}{\mu}, 0\right) \quad n', y'_2 = (0, 1) \quad n', y'_3 = (-1, 0)$$



والبه ها مقصود است
نقطه نمودار را مشخص کنید

$$y' = \frac{1}{\mu} y + 1 \quad n' = \frac{1}{\mu} n - 2 \quad (2) -7$$

$$f_{\text{معمولی}} = (1, 3) \xrightarrow{\text{تعیین}} 1 \leq \frac{1}{\mu} - 2 \leq 1 \quad \frac{1}{\mu} \leq \frac{1}{\mu} + 1 \leq 3 \quad (2) -8$$

$$-1 \leq \frac{0}{\mu} \leq \frac{-5}{\mu}$$

$$f(n) \rightarrow D = (a, b] \quad f(n-1) \quad a \leq n-1 \leq b \quad a+1 \leq n \leq b+1 \quad (2) -9$$

$$g(n) \quad D = [-1, b) \quad g(n+1) \quad -1 \leq n+1 \leq b \quad -2 \leq n \leq b-1$$

$$a+1 = -2 \quad a = -3 \quad b-1 = 0 \quad b = 1 \quad -3-4 = -7$$

$$Df\left(\frac{n}{r}+1\right) = [-r, 0] \quad Df \Rightarrow x < -r \quad f\left(\frac{1}{r}\right) \quad (1,5) \quad -9$$

$$n < 0 \Rightarrow f\left(\frac{v}{r}\right) \quad Df \in \left[\frac{1}{r}, \frac{v}{r}\right]$$

$$Rf\left(\frac{n}{r}+1\right) \leq Rf(n) \Rightarrow x^2 - r : -8 \leq |rf(n) - r| \leq 1 \checkmark$$

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

$$D_{\text{نوع}} = \left[\frac{-1}{r}, \frac{v}{r}\right]$$

$$\Rightarrow \text{or } |rf(n) - r| \leq 1 \checkmark$$

$$R \in [0, \sqrt{r}]$$

$$\in [0, 1]$$

$$f(n) \leq \left| \frac{n+1}{r_{n+1}} \right| \longrightarrow$$

$$-1.$$

$$0$$

صفحه آخر

رأس $\left| \frac{1}{r} \right| \Rightarrow \begin{cases} r_n + 2 = 1 \rightarrow n = -\frac{1}{r} \Rightarrow \alpha = -\frac{1}{r} \\ y = 1 - 2f(1) = 1 - 2\left(\frac{1}{r}\right) = -\frac{1}{r} \Rightarrow \beta = -\frac{1}{r} \end{cases} \Rightarrow \alpha\beta = \boxed{\frac{1}{r^2}}$

$D_{y_1} = [-2, 5] \rightarrow -2 \leq n \leq 5 \rightarrow -\frac{1}{r} \leq \frac{n}{r} + 1 \leq \frac{5}{r} \Rightarrow D_f = \left[-\frac{1}{r}, \frac{5}{r}\right]$

$R_{y_1} = [-1, 2] \rightarrow -1 \leq f \leq 2 \rightarrow -5 \leq 2f - 3 \leq 1 \rightarrow 0 \leq |2f - 3| \leq 5$

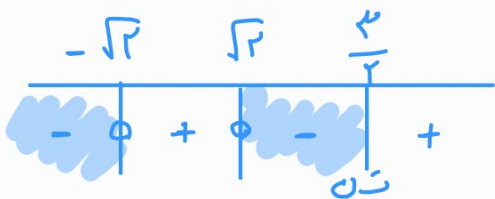
$0 \leq \sqrt{|2f - 3|} \leq \sqrt{5} \Rightarrow R_f = [0, \sqrt{5}]$

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

$n + g(n) < 0 \rightarrow \left| \frac{n-1}{2n-3} \right| < -1-n$

از به قدر مطلق بزرگتر شده پس باید مثبت باشد: $-1-n > 0 \rightarrow n < -1$

$\xrightarrow{n < -1} \xrightarrow{\text{قدر مطلق مثبت}} \frac{n-1}{2n-3} < -1-n \rightarrow \frac{2n^2-4}{2n-3} < 0 \rightarrow \frac{2(n-\sqrt{2})(n+\sqrt{2})}{2n-3} < 0$



$\xrightarrow{n < -1} n < -\sqrt{2} \rightarrow (-\infty, -\sqrt{2})$