

19

Subject

Date

A بر

عرفان حقیقی بازدهم

$$y = (n-1)^r + 1 \Rightarrow y-1 = (n-1)^r \Rightarrow$$

$$\sqrt[r]{y-1} + 1 = n \quad R_f = R \checkmark$$

$$\div 1 \quad y = \frac{1}{(n-1)^r - 1} \Rightarrow y(n-1)^r - y = 1 \Rightarrow (n-1)^r = \frac{y+1}{y}$$

$$n = \pm \sqrt[r]{\frac{y+1}{y}} + 1 \quad R_f = (-\infty, -1] \cup (0, +\infty) \checkmark$$

$$y = n^r - rn + 1 \quad \begin{cases} n = r = \frac{b}{ra} \\ y_{\min} = y \end{cases} \quad R_f = [y, +\infty) \checkmark$$

$$y = -n^r + rn + r \quad \begin{cases} n = r \\ y_{\max} = 1r \end{cases} \quad R_f = (-\infty, 1r] \checkmark$$

$$y = \sqrt{n^r - rn - r} \quad \begin{cases} n = r \\ y_{\min} = -V \end{cases}$$

$$R_f = \sqrt{[-V, +\infty)} \rightarrow R_f = [0, +\infty) \checkmark$$

$$\sqrt{-n^r + rn} \rightarrow \begin{cases} n = r \\ y_{\max} = 9 \end{cases} \quad R_f = \sqrt{(-\infty, 9]} \rightarrow [0, 3] \checkmark$$

$$الف) R_f = R \checkmark$$

(2) /s

$$ب) R_f = R \checkmark$$

$$ج) R_f = [0 + \infty) \checkmark$$

$$د) R_f = [0 + \infty) \checkmark$$

$$الف) y = \frac{r_{n+1}}{n-r}$$

$$R_f = R - \{r\} \checkmark$$

(2) /s

$$ب) y = \frac{r_{n+1}}{n+1}$$

$$R_f^{\text{min}} = R - \{r\} \checkmark$$

$$الف) \sqrt{\frac{r_{n+1}}{n+1}}$$

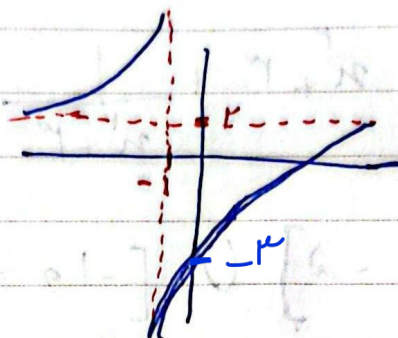
$$R_f = [0 + \infty) - \{r\} \checkmark$$

(2) /s

$$ب) \sqrt{\frac{r_{n+1}}{-n+r}}$$

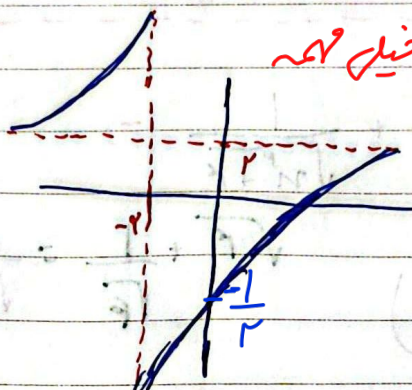
$$R_f = [0 + \infty) \checkmark$$

الف) $\frac{r_n - r}{n+1}$



(ع) ٢

ب) $\frac{r_n - 1}{n+2}$



حل به خود با نمودارها خیر می

الف) $R_f = (-\infty, -r] \cup [r, +\infty)$ ✓ (ص) ٢

ب) $y = \frac{n^2 + 1}{n^2} \Rightarrow n + \frac{1}{n^2} \quad R_f = (-\infty, -r] \cup [r, +\infty)$ ✓

ج) $\sqrt[n]{n} + \frac{1}{\sqrt[n]{n}} \quad R_f = (-\infty, -r] \cup [r, +\infty)$ ✓

د) $\sqrt{n} + \frac{1}{\sqrt{n}} \quad R_f = [r, +\infty)$ ✓

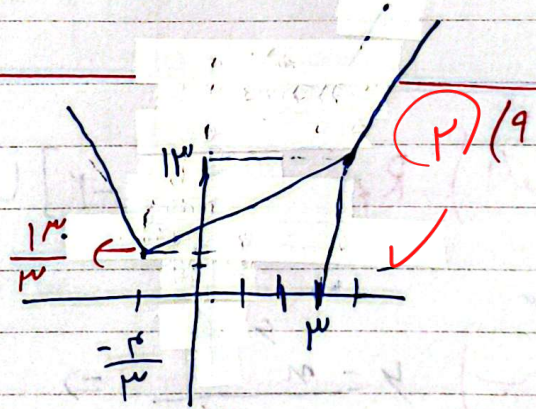
۱) این عبارت باید قیامت! شدن را داشته باشد به عنوانی بدیم $(2, \infty)$

الف) $y = x^2 + 3 + \frac{1}{x^2 + 3} - 3 \Rightarrow y + 3 = x^2 + 3 + \frac{1}{x^2 + 3}$
 بعد از این عبارت همواره + است و $\frac{1}{x^2 + 3}$ است $\frac{1}{x^2 + 3}$ است $\frac{1}{x^2 + 3}$ است
 یعنی فقط باید حالت $\frac{1}{x^2 + 3}$ را در نظر بگیریم
 $R_f = (-\infty, -\omega) \cup [-1, +\infty) \quad (\frac{1}{x^2 + 3})$ (۱)

کمترین مقدار $y = \sqrt{x^2 + 4} + \frac{1}{\sqrt{x^2 + 4}} = \sqrt{x^2 + 4}$

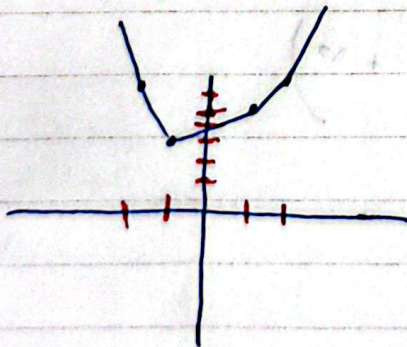
م است است پس $\sqrt{4} + \frac{1}{\sqrt{4}} = \frac{5}{2}$
 $R_f = [\frac{5}{2}, +\infty)$ ✓

$- \frac{1}{x} \quad x \quad x+1$
 $-(x-1) \quad x+1 \quad x+1$



$R_f = [\frac{1}{x}, +\infty)$

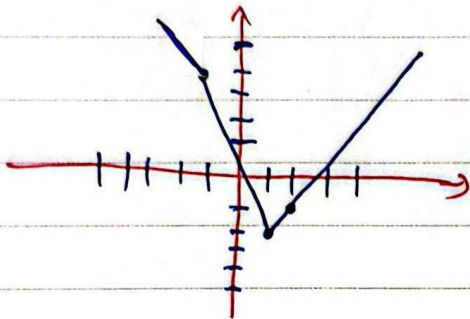
الف) $|x-2| + |x+2| \Rightarrow \begin{matrix} -2 & -1 & 1 & 2 \\ 2 & 3 & \omega & 4 \end{matrix}$



$R_f = [3, +\infty)$ ✓

(۲)

$$\therefore |x-1| - |x+1| \Rightarrow \begin{cases} -1 \\ 0 \end{cases}, \begin{cases} -1 \\ 1 \end{cases}, \begin{cases} 1 \\ -1 \end{cases}$$



$$R_f = [-1, +\infty) \quad \checkmark$$