

$$-2 \leq \frac{r_n + 2}{0} \leq 2 \xrightarrow{\times 0} -1 \leq r_n + 2 \leq 1 \xrightarrow{-2} -1 \leq r_n \leq 1$$

$$\xrightarrow{\div 2} -1 \leq r_n \leq 1 \rightarrow \boxed{D_f = [-1, 1]}$$

$$-2 \leq r_n \leq 2 \xrightarrow{\times 2} -4 \leq r_n \leq 4 \xrightarrow{-2} -6 \leq r_n - 2 \leq 2$$

$$\rightarrow \boxed{D_f = [-6, 2]}$$

$$-1 \leq r_n \leq 3 \xrightarrow{\times 2} -2 \leq r_n \leq 6 \xrightarrow{+1} -1 \leq r_n + 1 \leq 7$$

$$\xrightarrow{\div 2} -1 \leq \frac{r_n + 1}{2} \leq 3.5$$

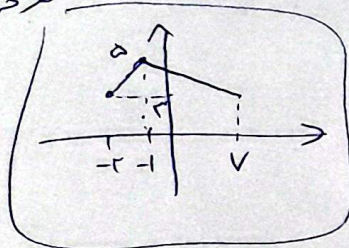
$$-1 \leq 2 - 5r_n \leq 5 \xrightarrow{-2} -1 \leq -5r_n \leq 7 \xrightarrow{\div (-5)}$$

$$-\frac{1}{5} \leq r_n \leq \frac{7}{5}$$

$$\boxed{D_f = (-\frac{1}{5}, \frac{7}{5})}$$

$$-1 \leq r_n \leq +1 \rightarrow -2 \leq r_n \leq 2 \xrightarrow{+1} -1 \leq r_n + 1 \leq 3$$

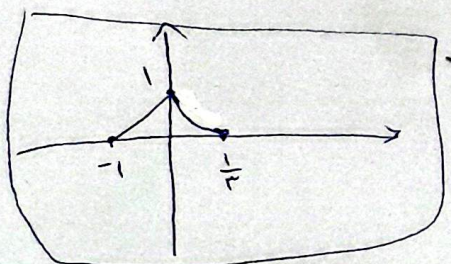
عرض ما 2 برابر 3



$$1 \leq r_n \leq 5$$

$$1 \leq 2 - r_n \Rightarrow r_n \leq 1$$

$$2 - r_n \leq 5 \Rightarrow r_n \geq -3 \Rightarrow -3 \leq r_n \leq 1$$



$$y = -\frac{1}{r}n^r + \frac{r}{\delta}n + 1 \rightarrow y = -\frac{1}{r}(n-r)^r + r$$

$$\rightarrow 0 = r + \frac{1}{r}(n-r)^r \rightarrow (n-r)^r = -r$$

$$n - r = \pm r \quad (n = 1 \vee)$$

S/C

$$r_n + r = 1 \rightarrow n = \frac{-1}{r}$$

$$y = 1 - r(r) = -V$$

$$\alpha = \frac{-1}{r}, \beta = -V$$

$$\boxed{\alpha\beta = \frac{V}{r}}$$

$$a < n-1 \leq r \rightarrow a+1 \leq n \leq r$$

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

$$(a+1, r] \cap [-r, b-1) = (-r, r)$$

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

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

$$\boxed{a-b = -9}$$

$$-1 \leq f(n) \leq r \xrightarrow{\times r} -r \leq rf(n) \leq r^2 \xrightarrow{+r} -r \leq rf(n) - r \leq r^2 - r$$

$$\rightarrow 0 \leq |rf(n) - r| \leq r^2 - r \xrightarrow{\sqrt{}} 0 \leq \sqrt{|rf(n) - r|} \leq \sqrt{r^2 - r}$$

$$\boxed{Rf = [0, \sqrt{r^2 - r}]}$$

$$-r \leq \frac{n}{r} + 1 \leq 0 \xrightarrow{\times r} -r^2 \leq n + r \leq 0 \rightarrow -r^2 - r \leq n \leq 0 \quad \boxed{Df = [-r^2 - r, 0]}$$

$$g(n) = f(n-r) + 1 = \left| \frac{n-1}{r_n-r} \right| + 1 \quad \boxed{(-\infty, -r)} - 1 \vee$$

$$n + g(n) < 0 \rightarrow n + \left| \frac{n-1}{r_n-r} \right| + 1 < 0 \quad \left\{ \begin{array}{l} n < -r \text{ or } n > 1 \end{array} \right.$$

$$n+1 < 0 \rightarrow n < -1$$

$$\left| \frac{n-1}{r_n-r} \right| = \frac{n-1}{r_n-r}$$

$$(n+r)(n-1) > 0$$

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

$$r_n - r < 0$$

$$(n-1) > (-n-1)(r_n-r) \quad n-1 \geq rn - n + r \rightarrow -rn + n - r > 0$$