

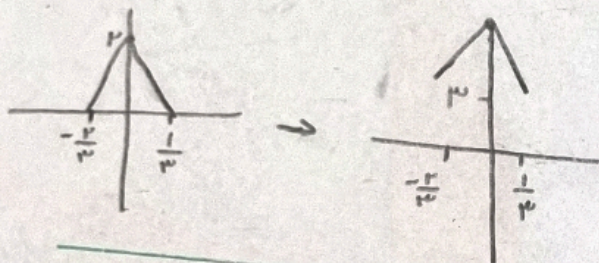
$$-2 \leq u \leq 2 \rightarrow -2 \leq \frac{3u+1}{5} \leq 2 \rightarrow -10 \leq 3u+1 \leq 10 \rightarrow -11 \leq 3u \leq 9 \rightarrow -\frac{11}{3} \leq u \leq 3$$

$$-2 \leq u \leq 2 \rightarrow -4 \leq 3u \leq 4 \rightarrow -8 \leq 3u-2 \leq 8 \rightarrow -6 \leq u \leq 10$$

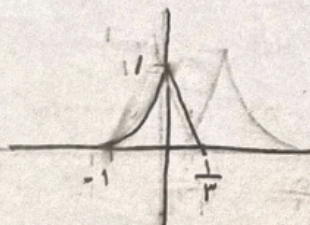
$$-1 \leq u \leq 2 \rightarrow -3 \leq 3u \leq 6 \rightarrow -2 \leq 3u+1 \leq 7 \rightarrow -3 \leq u \leq 2$$

$$-1 \leq u \leq 2 \rightarrow -3 \leq -5u \leq 10 \rightarrow -\frac{3}{5} \leq u \leq -2$$

$$-1 \leq u \leq 2 \rightarrow -1 \leq 3u+1 \leq 7 \rightarrow -2 \leq 3u \leq 6 \rightarrow -\frac{2}{3} \leq u \leq 2$$



$$1 \leq u \leq 5 \rightarrow 1 \leq 2-3u \leq 5 \rightarrow -1 \leq -3u \leq 3 \rightarrow -1 \leq u \leq \frac{1}{3}$$



دائره‌های تابع مدید
شکل تابع اول به نسبت محور مختصات

$$f(n) = a(n+1)(n-p) \frac{n+1}{p} - \varepsilon a, p \rightarrow a, -1 \rightarrow f(n), -n^2 + 2n + p$$

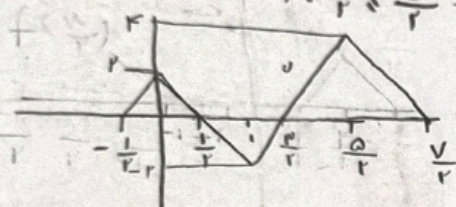
$$pn + p + 1 \rightarrow n = -\frac{1}{p} \rightarrow y = 1 - pf(1) = 1 - (p \times \varepsilon) = -v$$

$$-v \times -\frac{1}{p} = \frac{v}{p}$$

$$Df(n-1) : (a+1, p) \quad Dg(n+1) : [-p, b-1]$$

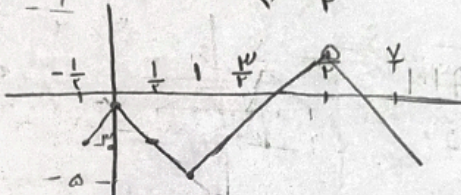
$$a+1, p \rightarrow [a+1, p] \quad b-1, \omega \rightarrow [b-1, \omega] \quad -1 - 4, \sqrt{-v}$$

$$-p \leq n \leq \omega \rightarrow \frac{p}{p} \leq \frac{n}{p} \leq \frac{\omega}{p} \rightarrow -\frac{1}{p} \leq \frac{n}{p} + 1 \leq \frac{\omega}{p}$$

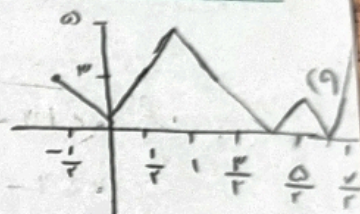


$$y, pf(n)$$

$$\rightarrow D : [-\frac{1}{p}, \frac{v}{p}] , R : [0, \sqrt{\omega}]$$



$$y, pf(n) - p$$



$$y, |pf(n) - p|$$

$$f(n) = \left| \frac{n-p+1}{p(n-p)+1} \right|, \left| \frac{n-1}{pn-p} \right| \rightarrow \left| \frac{n-1}{pn-p} \right| + 1 \rightarrow n + \left| \frac{n-1}{pn-p} \right| + 1 < \dots$$

$$\frac{pn^p - pn + n - 1 + pn - p}{pn - p} < \dots \quad \frac{pn^p - \varepsilon}{pn - p} < \dots \quad \frac{-\sqrt{p} \sqrt{p} \frac{p}{p}}{-p + p - p} (-\infty, \sqrt{p}] \cup [\sqrt{p}, \frac{p}{p})$$

$$\left| \frac{n-1}{pn-p} \right| > n+1 \rightarrow \frac{n-1 - pn^p + pn - pn + p}{pn - p} > \frac{-pn^p + pn + p}{pn - p} > \dots$$

$$\frac{p(-n^p + n + 1)}{pn - p} > \dots$$