

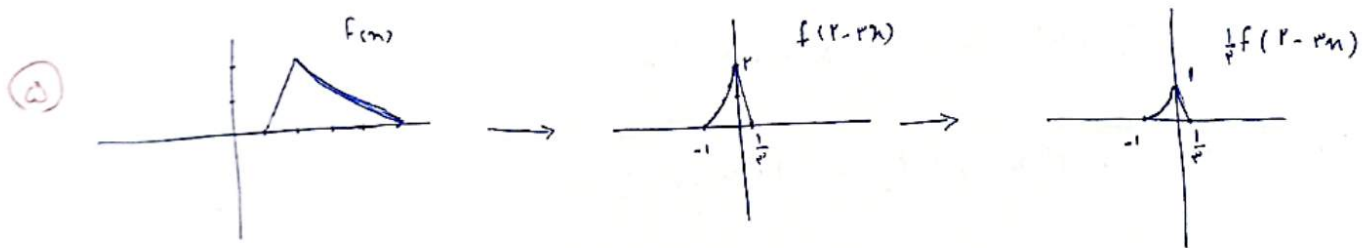
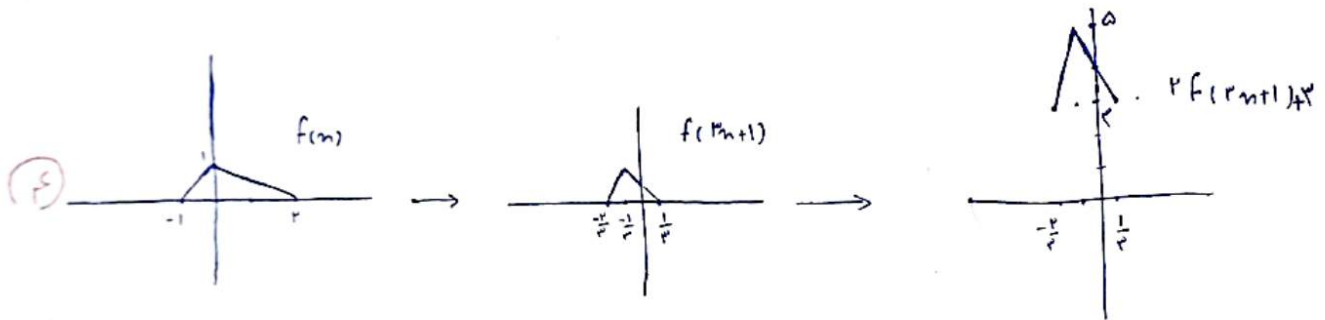
$$(1) -r \leq n \leq r \rightarrow -r \leq \frac{r_{n+1}}{\Delta} \leq r \rightarrow -1 \leq r_{n+1} \leq r \rightarrow -1 \leq r_n \leq 1$$

$$\downarrow$$

$$\boxed{-r \leq n \leq r}$$

$$(2) -r \leq n \leq r \rightarrow -1 \leq r_{n+1} \leq r \rightarrow \boxed{-1 \leq n \leq r}$$

$$(3) -1 \leq n \leq r \rightarrow -1 \leq \frac{r_{n+1}}{\Delta} \leq r \rightarrow -1 \leq r - \Delta n \leq \frac{r}{\Delta} \rightarrow -r \leq -\Delta n \leq r \rightarrow \boxed{-\frac{r}{\Delta} \leq n \leq \frac{r}{\Delta}}$$



(6)

$$(7) \text{Case } (1) \rightarrow r_{n+1} = 1 \rightarrow n = -\frac{1}{r} \rightarrow y = 1 - r \times f = -r \rightarrow \boxed{\alpha \beta = \frac{r}{r}}$$

$$(8) \left. \begin{aligned} a < n \leq r \rightarrow a < n-1 \leq r \rightarrow a+1 < n \leq r \rightarrow a+1 = -r \rightarrow a = -r \\ -1 \leq n < b \rightarrow -1 \leq n < b-1 \rightarrow b-1 = \Delta \rightarrow b = \Delta \end{aligned} \right\} a \cdot b = \boxed{-9}$$

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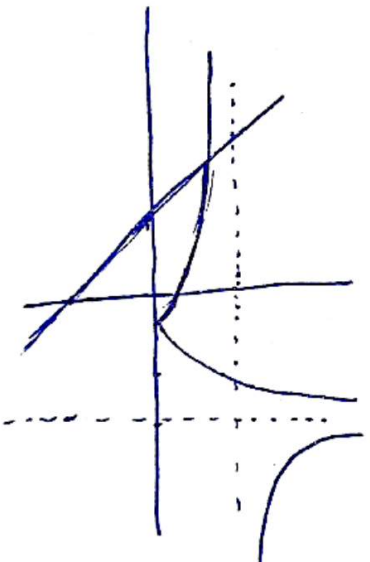
$$y \sim f\left(\frac{n}{p} + 1\right) \rightarrow -r^u \leq n \leq \infty \rightarrow -\frac{1}{p} \leq \frac{n}{p} + 1 \leq \frac{1}{p} \rightarrow \Omega_{xy} = \left[-\frac{1}{p}, \frac{1}{p}\right]$$

$$R_{y_1} = [-1, 1] \rightarrow r f(n) = [-r, r] \rightarrow r f(n) - r = [-\delta, \delta] \rightarrow \sqrt{|[-\delta, \delta]|} = [0, \sqrt{\delta}]$$

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$$f(n) = \left| \frac{n+1}{r_{n+1}} \right| \rightarrow g(n) = \left| \frac{n-1}{r_{n-1}} \right| + n \rightarrow \left| \frac{n-1}{r_{n-1}} \right| + n + 1 < 0$$

$$\left| \frac{n-1}{r_{n-1}} \right| < -n-1$$



$$\frac{1-n}{r_{n-1}} = -n-1$$

$$\hookrightarrow \frac{n-1}{r_{n-1}} = n+1 \rightarrow$$