

$$\left| \frac{-b}{\frac{1}{\mu}} \right| = \frac{-1}{\frac{1}{\mu}} = \frac{1}{\mu}$$

$$y = \frac{-1}{\mu} \left(n - \frac{n}{0} \right)^r + \frac{1}{\mu}$$

نقطهٔ بحرانی

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

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

$$\begin{aligned} (n-r)^r &\leq \mu \\ n-r &\leq \sqrt[r]{\mu} \\ n-r &\leq -\mu \end{aligned}$$

$$\left. \begin{aligned} n &\leq \sqrt[r]{\mu} \\ n &\leq -\mu \end{aligned} \right\} n \leq -1$$

(2) [9]

$$x_{\text{max}} = 1 \quad \mu x' + \frac{1}{\mu} = 1$$

$$y_{\text{max}} = \frac{1}{\mu} \quad x' = \frac{-1}{\mu}$$

$$y = 1 - \frac{1}{\mu} \frac{f(1)}{1} = -\frac{1}{\mu}$$

$$\alpha/\beta = \frac{\sqrt{\mu}}{\mu}$$

(2) [✓]

$$f(n-1) \quad D_f = (a+1, a]$$

$$g(n+1) \quad D_g = [-r, b-1)$$

$$\leftarrow \begin{cases} g(n) & f(n) \\ D_g = [-1, b) & D_f = (a, r] \end{cases}$$

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

$$\begin{aligned} b-1 &= a \rightarrow b = a+1 \\ a+1 &= -r \rightarrow a = -r-1 \end{aligned}$$

$$a-b = -r-1-a = -r-1-a$$

(2) [✓]

$$-r \leq n \leq a$$

$$\frac{-r}{r} \leq \frac{n}{r} \leq \frac{a}{r}$$

$$\frac{-1}{r} \leq \frac{n}{r} + 1 \leq \frac{a}{r}$$

$$\therefore f(n) \rightarrow [-1, r]$$

$$\therefore rf(n) \rightarrow [-r, r]$$

$$\therefore rf(n) - r \rightarrow [-0, 1]$$

$$\therefore |rf(n) - r| \rightarrow [0, a]$$

(2) [9]

$$D_f = \left[\frac{-1}{r}, \frac{a}{r} \right]$$

$$R_f = [0, \sqrt{a}]$$

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

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

چون قدر مطلق همیشه نامنفی است

$$n < -1$$

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

$$\begin{aligned} &\frac{-\sqrt{r}}{r} + \frac{\sqrt{r}}{r} \cdot \frac{r}{r} \\ &= \frac{-1}{r} + \frac{1}{r} = 0 \end{aligned} \quad \text{II}$$

(2) [1a]

I

$$n < -1$$

$$\text{I} \cap \text{II} \rightarrow (-\infty, -\sqrt{r})$$

(کلیف V)

(نقطه ششگوش)

(دوازدهم رفته B)

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$$-2 \leq \frac{m+2}{2} \leq 4$$

$$-10 \leq m+2 \leq 8$$

$$-12 \leq m \leq 6$$

$$-4 \leq m \leq 4$$

$$D_f = [-4, 4]$$

(۲)

(۱)

$$-2 \leq m \leq 4$$

$$-9 \leq m \leq 4$$

$$-8 \leq m-2 \leq 6$$

$$D_f = [-8, 6]$$

(۲)

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$$-1 \leq m \leq 4$$

$$-3 \leq m \leq 4$$

$$-2 \leq m+1 \leq 10$$

$$f \rightarrow -1 \leq \frac{m+1}{2} < 0$$

$$-1 \leq 2-0m < 2$$

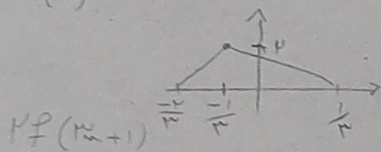
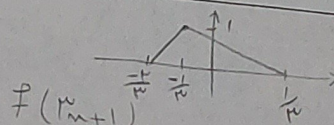
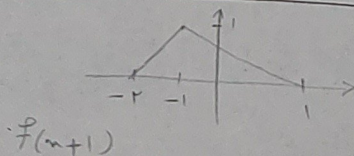
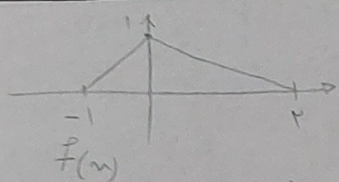
$$-3 \leq -0m < 3$$

$$\frac{m}{2} \geq m > \frac{m}{2}$$

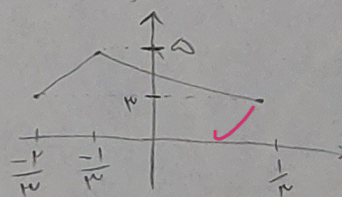
$$D_f = \left[\frac{-m}{0}, \frac{m}{0} \right]$$

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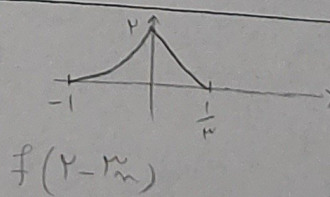
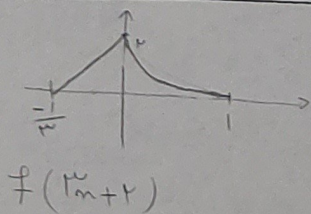
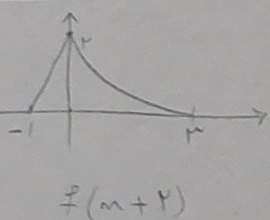


$$\frac{1}{2} f(m+1) + 2$$

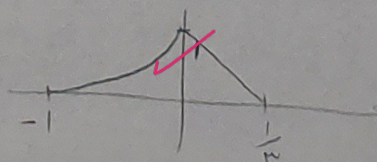


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$$\frac{1}{2} f(2-m)$$



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