

$$-2 \leq \frac{m+2}{5} \leq 4 \rightarrow -10 \leq m+2 \leq 20 \rightarrow -12 \leq m \leq 18$$

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

$$D_f\left(\frac{m+2}{5}\right) = [-2, 4]$$

1 (۲)

$$-2 \leq m \leq 4 \rightarrow -6 \leq 3m \leq 12 \rightarrow -8 \leq 3m-2 \leq 10$$

$$D_f(m) = [-8, 10]$$

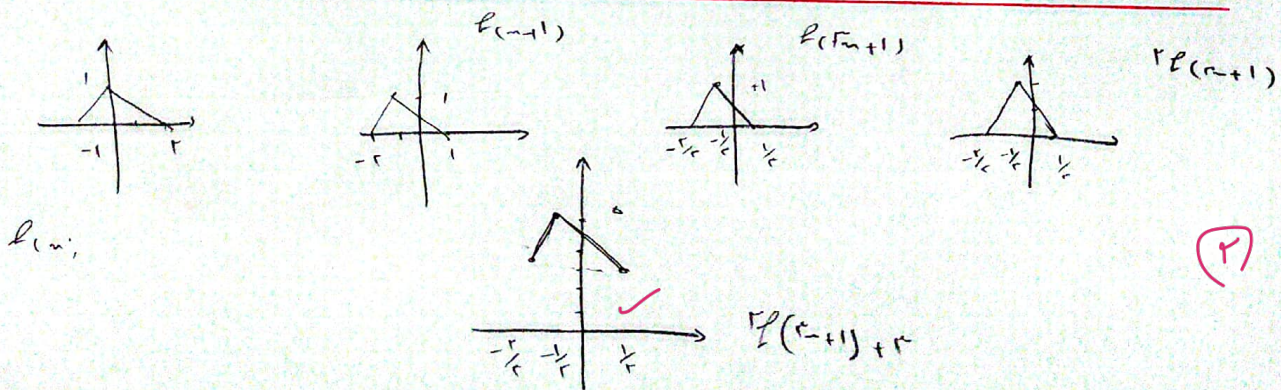
2 (۲)

$$-1 \leq m \leq 3 \rightarrow -4 \leq 2m \leq 6 \rightarrow -2 \leq m+1 \leq 4 \rightarrow -1 \leq \frac{m+1}{2} \leq 2$$

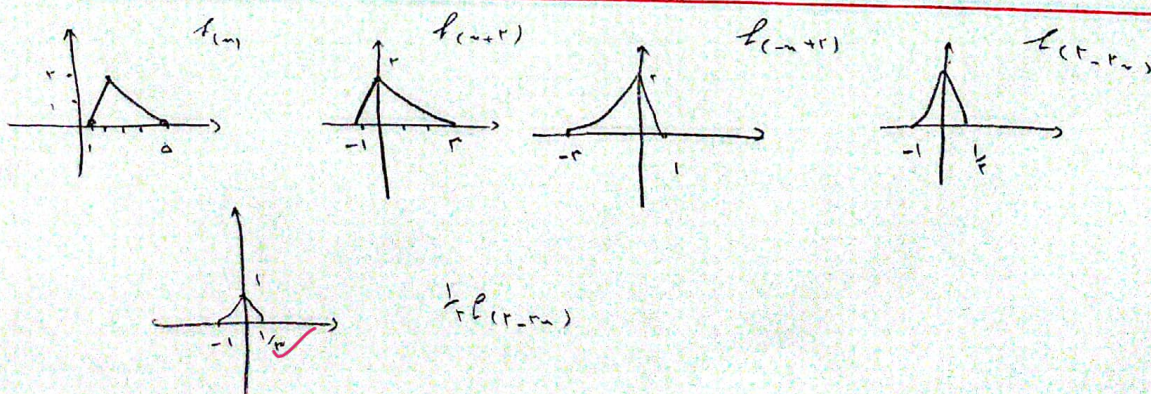
$$-1 \leq 2-5m \leq 2 \rightarrow -3 \leq -5m \leq 1 \rightarrow \frac{3}{5} \geq m \geq -\frac{1}{5}$$

$$D_f(2-5m) = \left[-\frac{3}{5}, \frac{1}{5}\right]$$

3 (۲)



4 (۲)



5 (۲)

$$y = \frac{1}{r} x^r + \frac{r}{a} x + 1 \rightarrow \text{let } \begin{cases} \frac{-b}{1a} = \frac{\frac{-r}{-1/r}}{\frac{-1}{-1/r}} = \frac{r}{a} \\ \frac{-1/r}{1a} + \frac{r}{a} \times \frac{r}{a} + 1 = \frac{r}{a} \end{cases}$$

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

$$(n-1)x^r = 1 \rightarrow n-1 = \frac{1}{x^r} \Rightarrow \underline{n = \frac{1}{x^r} + 1}$$

$$n-1 = -r \Rightarrow \underline{n = -r + 1}$$

$$\text{let } \varepsilon = (1/r) \rightarrow y = 1 - r \ell(n+r) \rightarrow r-n-r = 1 \rightarrow n = -1/r = \infty$$

$$\text{Let } n = -1/r \rightarrow y = 1 - r \ell(n) : 1 - r \times \varepsilon = -1/r \times r$$

$$x/r = -1/r \times -1 = \frac{1}{r}$$

$$\ell : a < n-1 \leq \varepsilon \rightarrow a+1 < n \leq d \quad \left. \begin{array}{l} \\ \end{array} \right\} (-r, \infty)$$

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

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

$$b-1 = 1 \rightarrow b = 2$$

$$a-b = -r-1-2 = -r-3$$

$$g_r = \sqrt{|r \ell(n) - r|} \quad D_{g_r} : D_{g_r} \quad g_1 = \ell\left(\frac{n}{r} + 1\right)$$

$$-r \leq n \leq d \rightarrow -\frac{r}{r} \leq \frac{n}{r} \leq \frac{d}{r} \rightarrow -1 \leq \frac{n}{r} + 1 \leq \frac{d}{r} \rightarrow D_{g_r} : \left[-\frac{1}{r}, \frac{d}{r}\right]$$

$$R_{g_1} = [-1, r] \rightarrow -1 \leq \ell(n) \leq r \rightarrow -r \leq r \ell(n) \leq r^2 \rightarrow -r^2 \leq r \ell(n) - r \leq r^2 - r$$

$$0 \leq |r \ell(n) - r| \leq d \rightarrow 0 \leq \sqrt{|r \ell(n) - r|} \leq \sqrt{d} \rightarrow R_{g_r} : [0, \sqrt{d}]$$

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

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

$$n \geq \frac{r}{r} \rightarrow n + \frac{n-1}{r(n-r)} + 1 < \infty \rightarrow \frac{r(n-r)-1}{r(n-r)} < \infty \Rightarrow \frac{-1}{r(n-r)} < \infty$$

$$n < 1 \rightarrow n + \frac{n-1}{r(n-r)} + 1 < \infty \rightarrow \frac{r(n-r)-2}{r(n-r)} < \infty \Rightarrow \frac{-2}{r(n-r)} < \infty$$