

1.2.1.1

Gesamt

$$-r \leq \frac{r_{n+1}}{\omega} \leq r \rightarrow -1 \leq \frac{r_{n+1}}{r} \leq 1 \rightarrow -1 \leq r_n \leq 1$$

$$\boxed{-1 \leq r_n \leq 1} \text{ erlaubt } [-1, 1]$$

$$-r \leq r_n \leq r \rightarrow -1 \leq \frac{r_{n+1}}{r} \leq 1 \Rightarrow D_{f(n)} = [-1, 1]$$

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

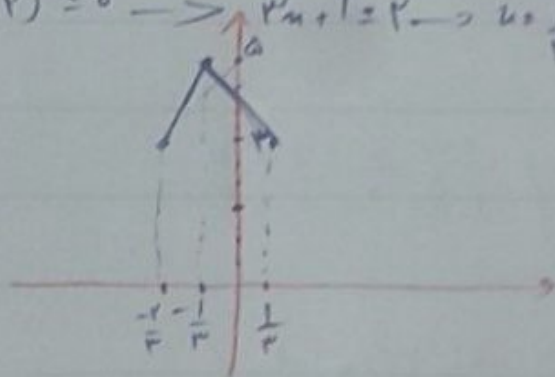
$$D_f(r, \omega) \Rightarrow -1 \leq r \cdot \omega n \leq 1 \rightarrow -r \leq -\omega n \leq r \rightarrow \frac{-r}{\omega} \leq n \leq \frac{r}{\omega}$$

$$\Rightarrow \text{erlaubt } \left[-\frac{r}{\omega}, \frac{r}{\omega} \right]$$

$$f(0) \leq 1 \rightarrow r_{n+1} \leq 0 \rightarrow n \leq \frac{1}{r}, y = 0$$

$$f(-1) \leq 0 \rightarrow r_{n+1} \leq -1 \rightarrow n \leq \frac{r}{r}, y = r$$

$$f(r) \leq 0 \rightarrow r_{n+1} \leq r \rightarrow n \leq \frac{1}{r}, y = r$$



$$f(1) \leq 0 \rightarrow r \cdot r_n \leq 1 \rightarrow n \leq \frac{1}{r}, y = 0$$

$$f(r) \leq r \rightarrow r \cdot r_n \leq r \rightarrow n \leq 0, y = 1$$

$$f(\omega) \leq 0 \rightarrow r \cdot r_n \leq \omega \rightarrow n \leq -1, y = 0$$



$$y = -\frac{1}{r}n^r + \frac{r}{\omega}n + 1 \quad u = \frac{-\frac{r}{\omega}}{-\frac{r}{n}} = \left(\frac{r}{\omega}\right) \quad y = \frac{r\omega}{r\omega}$$

$$y' = -\frac{1}{r}(n-r)^{r-1} + r \xrightarrow{y'=0} 0 = -\frac{1}{r}(n-r)^{r-1} + r \Rightarrow \frac{1}{r}(n-r)^{r-1} = r \rightarrow n-r = r \rightarrow n = 2r$$

$$\text{Ext}(f) \rightarrow 1/r \quad y = 1 - rf(rn+r) \rightarrow rn+r \leq 1 \rightarrow n \leq \frac{1}{r} - 1 = -1/r - 1$$

$$\rightarrow n \leq -1/r \rightarrow y = 1 - rf(1) = 1 - r^2 = -r^2$$

$$\alpha \beta = \left(\frac{v}{r}\right)$$

-1

$$f \rightarrow a \leq n-1 < r \Rightarrow a+1 \leq n < \omega \quad \text{I} \rightarrow (-r, a)$$

$$g \rightarrow -1 \leq n+1 < b \Rightarrow -r \leq n < b-1 \quad \text{II}$$

$$a+1 \leq -r \rightarrow a \leq -r-1 \quad b-1 \leq a \rightarrow b \leq a+1 \quad a-b \leq -1$$

-9

$$y_r = \sqrt{\frac{|rf(n+r)|}{r}} \quad p_{y_r} = p_{y_r} \quad y_1 = f\left(\frac{n}{r}+1\right)$$

$$-r \leq n \leq \omega \rightarrow p_{y_r} = \left[-\frac{1}{r}, \frac{v}{r}\right] \quad -\frac{1}{r} \leq \frac{n}{r}+1 \leq \frac{v}{r}$$

$$p_{y_r} = [-1, r] \quad -1 \leq f(n) \leq r \rightarrow -a \leq rf(n)-r \leq 1$$

$$\xrightarrow{\text{glukso}} [0, \omega] \xrightarrow{\text{lio}} p_{y_r} = [0, \sqrt{\omega}]$$

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

$$ru + \left| \frac{u-1}{ru-r} \right| + 1 < 0 \rightarrow 1 < u < \frac{r}{r-1}$$

$$u + \frac{u}{-ru+r} + 1 < 0 \quad u \geq \frac{r}{r-1} \rightarrow \frac{ru^2 - u}{ru-r} < 0 \quad \frac{-\sqrt{r}}{-1} + \frac{\sqrt{r}}{1} = \frac{r}{r-1}$$

$$u < 1 \rightarrow \frac{ru^2 - u}{ru-r} < 0$$

$$\Rightarrow (-\infty, -\sqrt{r})$$