

$$Df = [-r, r] \rightarrow Df\left(\frac{r_{m+1}}{0}\right) = [-r, r] \quad (1)$$

$$-r \leq \frac{r_{m+1}}{0} \leq r \rightarrow -1 \leq r_{m+1} \leq r \rightarrow -1 \leq r_m \leq 1 \quad -f \leq u \leq f$$

$$Df(r_m - r) = [-r, r] \rightarrow Df(r_m) = [-1, 1] \quad (2)$$

$$-r \leq u \leq r \rightarrow -1 \leq r_m - r \leq 1$$

$$Df\left(\frac{r_{m+1}}{r}\right) = [-1, 1] \quad (3)$$

~~$$\frac{r_{m+1}}{r} \leq r \rightarrow r_{m+1} \leq r^2$$~~

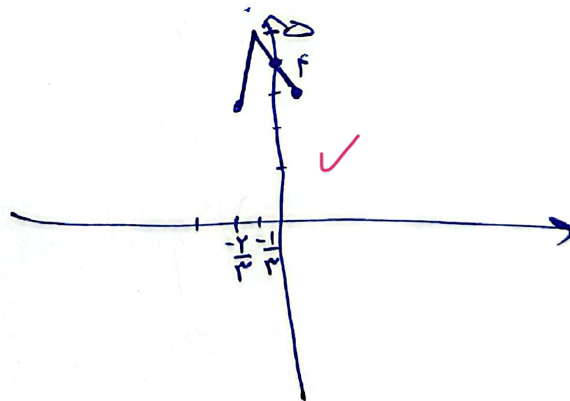
~~$$\frac{r_{m+1}}{r} \leq r$$~~

$$\hookrightarrow Df(r_m) = [-1, 0] \rightarrow Df(r - \partial u) = \left(-\frac{r}{0}, \frac{r}{0}\right] \quad -1 \leq u < r \quad -1 \leq \frac{r_{m+1}}{r} < 0$$

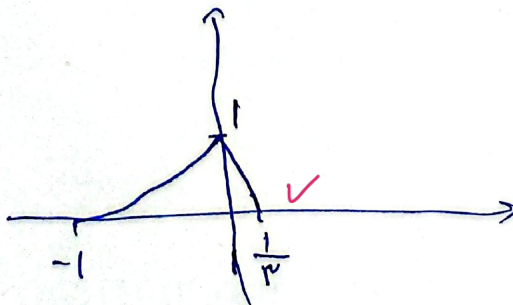
$$-1 \leq r - \partial u < 0 \rightarrow -r \leq -\partial u < r \rightarrow -\frac{r}{0} < u \leq \frac{r}{0}$$

$$(2) \quad (15)$$

$$y = r f(r_{m+1}) + r \rightarrow$$



$$Df(r - r_m) \rightarrow$$



$$(2) \quad (16)$$

$$y = -\frac{1}{r}u^r + \frac{r}{\delta}u + 1 \quad \text{ent} \left| \frac{r}{\delta} \right|$$

$$y = a(r-h)^r + k \quad \text{ent} \left| \frac{r}{r} \right|$$

(2) (f)

$$\begin{aligned} \rightarrow h &= r \\ k &= r \\ a &= -\frac{1}{r} \end{aligned} \rightarrow -\frac{1}{r}(u-r)^r + r = 0 \rightarrow u = \sqrt[r]{r}$$

0 (V)

$$\text{أس} \left| \frac{1}{r} \right| \Rightarrow \begin{cases} r_u + r = 1 \rightarrow u = \frac{-1}{r} \Rightarrow \alpha = \frac{-1}{r} \\ y = 1 - r f(1) = 1 - r(f) = -v \Rightarrow \beta = -v \end{cases} \Rightarrow \alpha\beta = \boxed{\frac{v}{r}}$$

$$Df_n = (a, r] \rightarrow Df_{n+1} = (a+1, d]$$

$$Dg_n = [-1, b) \rightarrow Dg_{n+1} = [-r, b-1)$$

$$\xrightarrow{n} (r, d) \rightarrow \begin{cases} a+1 = r \\ b-1 = d \end{cases}$$

$$\rightarrow \begin{cases} a = -r \\ b = r \end{cases}$$

$$\rightarrow a-b = \underline{-r}$$

(2) (A)

$$-r \leq u \leq 0 \rightarrow 0 \leq \frac{u}{r} + 1 \leq r \rightarrow Dg_r = Df = [-r, d]$$

$$R_f = [-1, r] \rightarrow -\delta r f(u) - r \leq 1 \rightarrow Rg_r = [0, \sqrt{d}]$$

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

$$1+u < \frac{u-1}{ru-r} < -1-u$$

$$\rightarrow u \in (-\infty, -\sqrt{r}) \cup (\sqrt{r}, 1, 0)$$

$$\left. \begin{aligned} \frac{u-1}{ru-r} - u - 1 > 0 &\rightarrow u \in (-\infty, \frac{1-\sqrt{d}}{r}) \cup (1, d, \frac{1+\sqrt{d}}{r}) \end{aligned} \right\} \xrightarrow{1} (-\infty, -\sqrt{r})$$

(2) (9)

(2) (b)