

$$f(u) = u - r + \sqrt{u - r} \rightarrow f(u) - (-u) + r - \sqrt{-u - \varepsilon} = u + r - \sqrt{-u - \varepsilon}$$

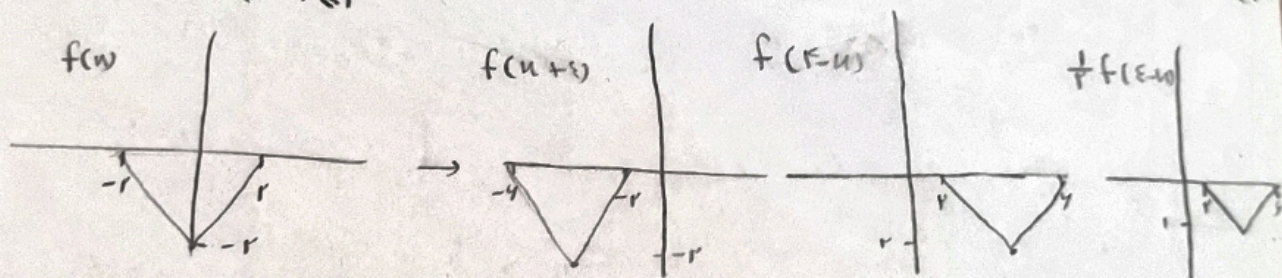
$$u + r - \sqrt{-u - \varepsilon} = u \rightarrow \sqrt{-u - \varepsilon} = r \rightarrow -u - \varepsilon = r^2 \rightarrow u = -r^2 - \varepsilon$$

$$\bullet \text{ } -1 \leq u \leq r \rightarrow \begin{matrix} -1 \leq r_k + 1 \leq 1 \\ -1 \leq u \leq 1 \end{matrix} \quad \frac{r(r^2 - 1)}{r} = r^2 - 1$$

$$\frac{u - a}{r} = r \rightarrow u = r^2 + a \quad y = a + r f(r) \rightarrow y = a - r$$

$$a - r \leq u + r a \leq 1 \rightarrow a, -r$$

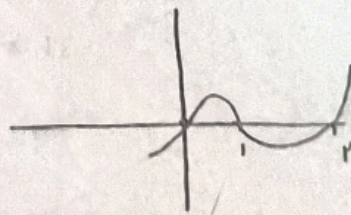
$$\bullet \text{ } -1 \leq u \leq r \rightarrow -r \leq u - r \leq r$$



$$-1 \leq r^2 u - 1 \leq 0 \rightarrow -1 \leq r^2 u \leq 1 \rightarrow -1 \leq u \leq r$$

$$\frac{-r}{-r} + \frac{r}{r} - \frac{1}{r} + \frac{1}{r} = 0$$

$$D_f = [-r, 0] \cup [1, r]$$



$$f \circ g = \{(r, r), (r, 0)\}$$

