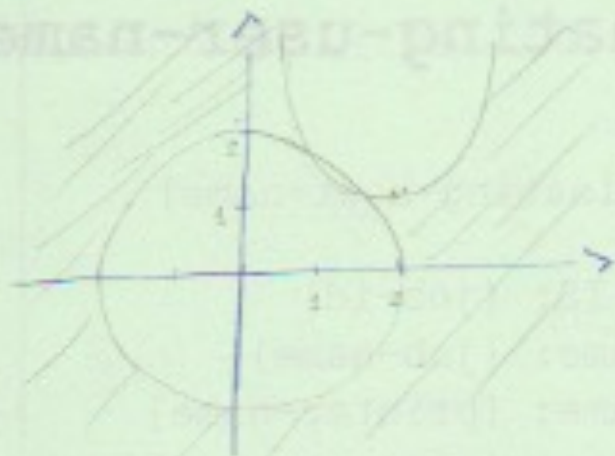


$$f(x,y) = \frac{\lg(y^2+x^2-4)}{x^2+y^2+2} \cdot \frac{1}{\sqrt{1-y+(x-2)^2}}$$

$$\begin{cases} y^2+x^2-4 > 0 \\ \sqrt{1-y+(x-2)^2} > 0 \end{cases} \quad \begin{cases} x^2+y^2 > 4 \\ y < 1+(x-2)^2 \end{cases}$$



$$\Xi = \{(x,y) \in \mathbb{R}^2 : x^2+y^2 > 4, y < 1+(x-2)^2\}$$

insieme aperto, connesso, limitato