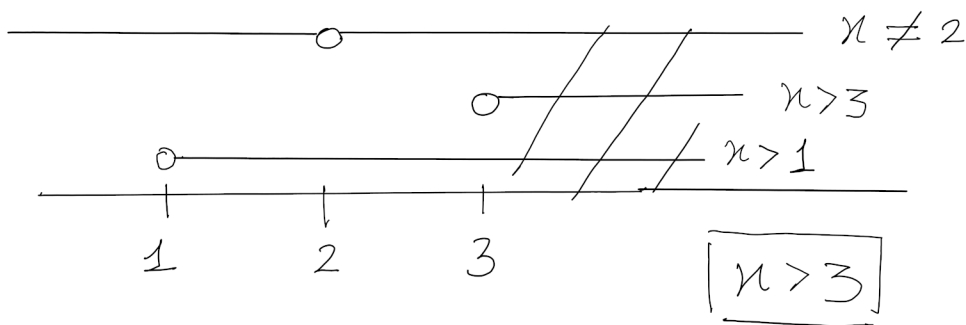


$$f(x) = \frac{\log_{\frac{1}{2}}(x-3)}{\log_3(x-1)}$$

Determinazione del dominio:

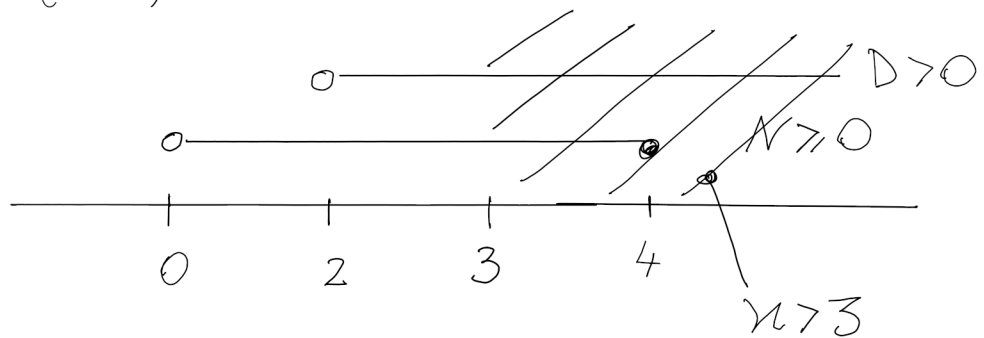
$$\begin{cases} x-3 > 0 \\ x-1 > 0 \\ x-1 \neq 1 \end{cases} \Rightarrow \begin{cases} x > 3 \\ x > 1 \\ x \neq 2 \end{cases}$$



Intervallo di positività:

$$N: \log_{\frac{1}{2}}(x-3) \geq 0 \Rightarrow 0 < x-3 \leq 1 \Rightarrow 3 < x \leq 4$$

$$D: \log_3(x-1) > 0 \Rightarrow x-1 > 1 \Rightarrow x > 2$$



$$3 < x \leq 4$$