

INTRODUZIONE AI LIMITI

$$y = \frac{1}{x-1}$$

$$x-1 \neq 0, \quad x \neq 1$$

$$\begin{cases} x=0 \\ y = \frac{1}{x-1} \end{cases}$$

$$A(0, -1)$$

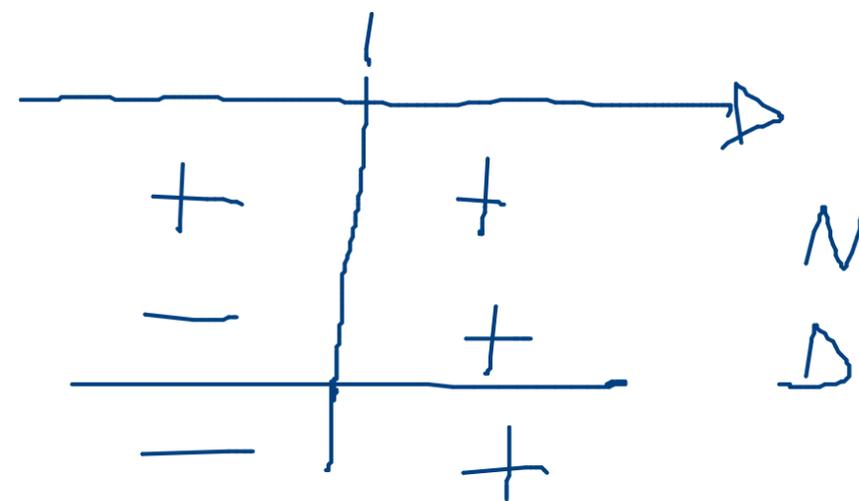
$$\begin{cases} y = \frac{1}{x-1} \\ y = 0 \end{cases}$$

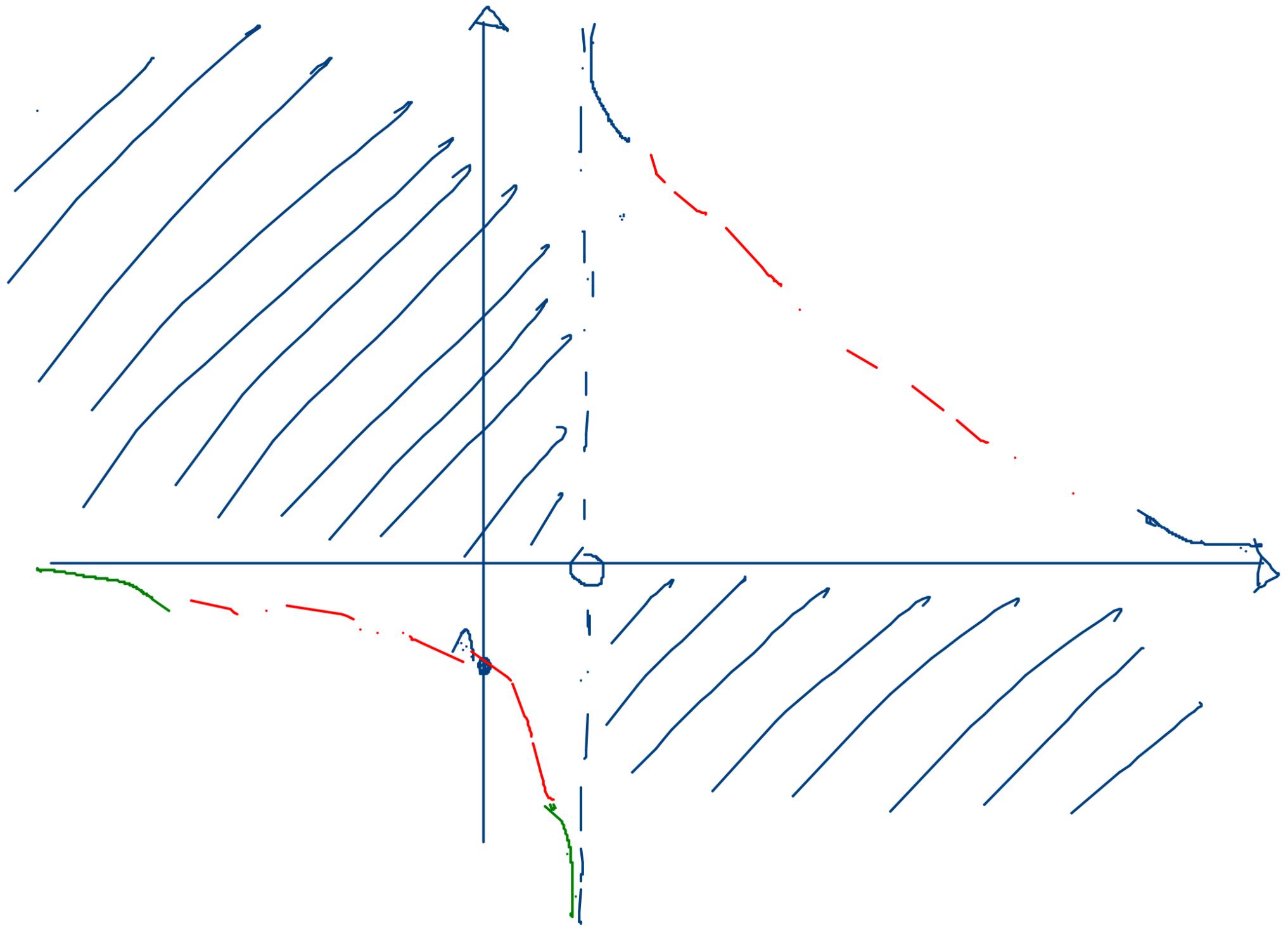
$$\frac{1}{x-1} = 0 \quad \text{no sol}$$

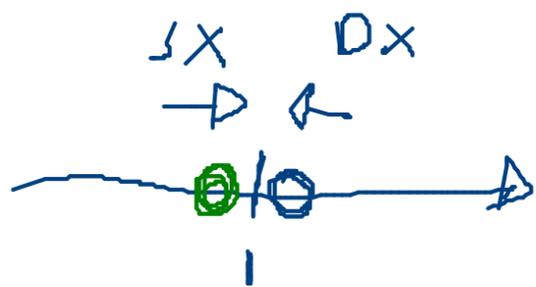
$$\frac{1}{x-1} > 0$$

$$N: + + +$$

$$D: x > 1$$







x	y
1,1	10
1,01	100
1,001	1000

x	y
0,9	-10
0,99	-100
0,999	-1000

$$y = \frac{1}{x-1}$$

$$\lim_{x \rightarrow 1^+} \frac{1}{x-1} = +\infty$$

$$f(1,1) = \frac{1}{1,1-1} = \frac{1}{0,1} = 10$$

$$\lim_{x \rightarrow 1^-} \frac{1}{x-1} = -\infty$$

$$f(0,9) = \frac{1}{0,9-1} = \frac{1}{-0,1} = -10$$



x	y
10	0,11
100	0,01
1000	0,001

x	y
-10	
-100	
-1000	

$$y = \frac{1}{x-1}$$

$$\lim_{x \rightarrow +\infty} \frac{1}{x-1} = 0$$

$$f(10) = \frac{1}{10-1} = \frac{1}{9} < 0,11$$

$$f(10) = \dots$$