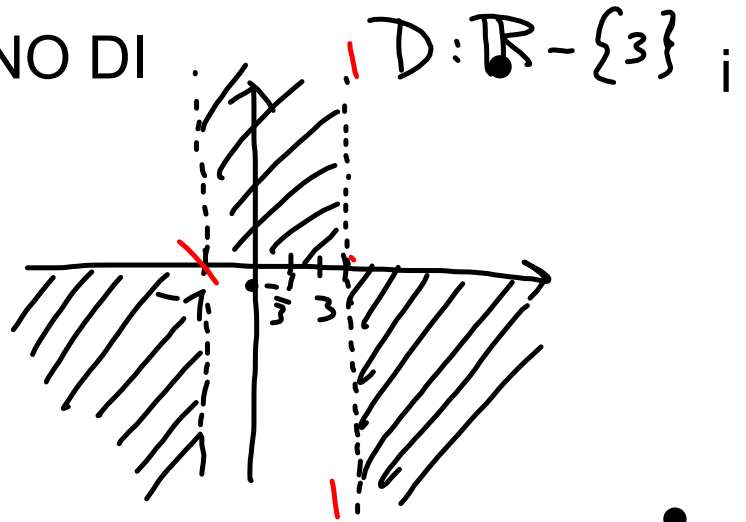


# STUDIO DEL SEGNO DI UNA FUNZIONE

$$y = f(x) \quad \begin{array}{c|c} x & y \\ \hline -2 & 2 \\ 0 & -\frac{1}{3} \end{array}$$



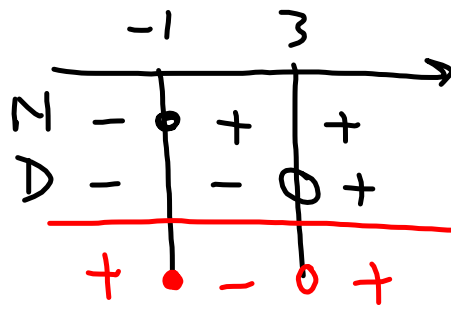
$$y = \frac{x+1}{x-3}$$

$f(x) \geq 0$  ← CERCO GLI INTERVALLI DI  $x$  PER I QUALI  $f(x)$  È POSITIVA.

$$\frac{x+1}{x-3} \geq 0$$

N:  $x+1 \geq 0 \quad x \geq -1$

D:  $x-3 > 0 \quad x > 3$



S:  $x \leq -1 \vee x > 3$

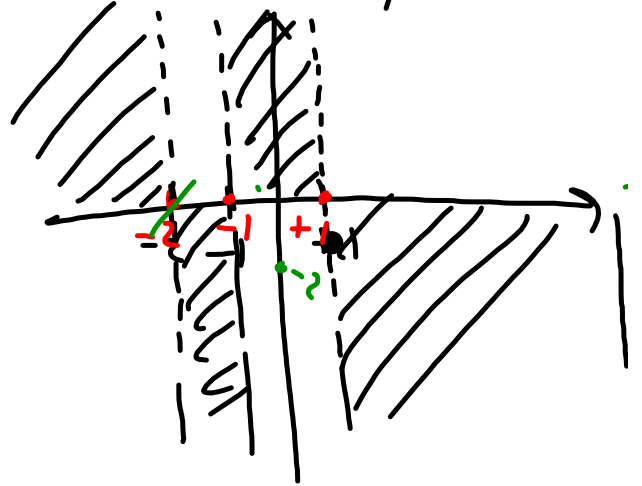
$$y = \frac{x+2}{x^2-1}$$

- 1) DOMINIO
- 2) SEGNO
- 3) INTERSEZIONE  
ASSE DELLE X e Y

$$D: \mathbb{R} - \{\pm 1\}$$

$$x^2 - 1 \neq 0 \quad (x+1)(x-1) = 0$$

$$x^2 = 1 \quad x = \pm 1$$



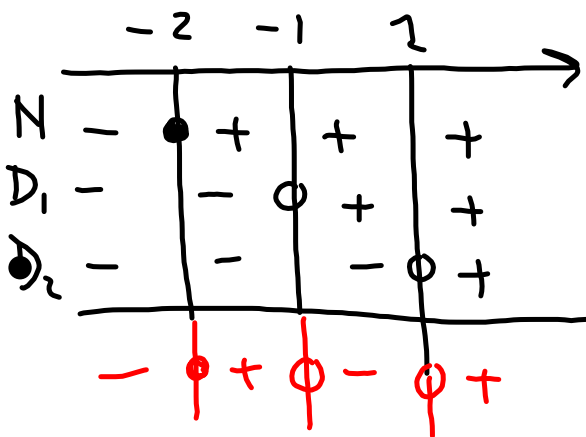
$$\frac{x+2}{x^2-1} \geq 0$$

$$N: x+2 \geq 0$$

$$x \geq -2$$

$$D: (x+1) > 0 \quad x > -1$$

$$x-1 > 0 \quad x > 1$$



INTERSEZIONE  
ASSE Y

$$y = \frac{0+2}{0-1} = -2$$