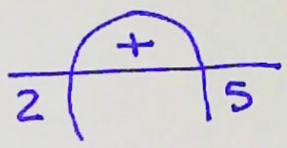
DOMINIO della FUNZIONE

$$y = \sqrt{7x - x^2 - 10} + \sqrt[5]{\frac{x^2+2x-3}{x^2-x-12}} \qquad (2)$$

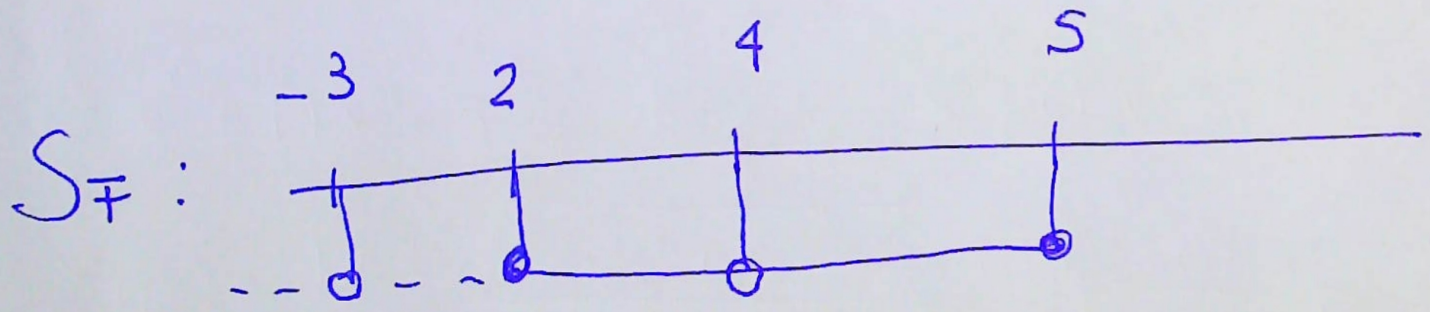
$$\begin{cases} (1)\ 7x - x^2 - 10 \geq 0 \\ (2)\ x^2 - x - 12 \neq 0 \end{cases} \qquad \begin{cases} 2 \leq x \leq 5 \\ x \neq 4 \ \wedge \ x \neq -3 \end{cases}$$

(1) $-x^2 + 7x - 10 \geq 0 \qquad x^2 - 7x + 10 = 0 \qquad x_{12} = \frac{7 \pm \sqrt{49-40}}{2} = \begin{cases} 5 \\ 2 \end{cases}$

$2 \leq x \leq 5$



(2) $x^2 - x - 12 \neq 0 \qquad x_{1,2} = \frac{1 \pm \sqrt{1+48}}{2} = \frac{1 \pm 7}{2} = \begin{cases} 4 \\ -3 \end{cases} \qquad \begin{matrix} x \neq 4 \\ \wedge \\ x \neq -3 \end{matrix}$



S_f: $[2, 4) \cup (4, 5]$