

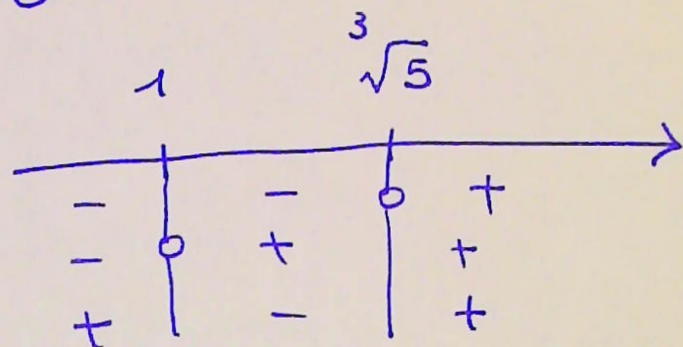
SISTEMA DI DISINQUAZIONI

$$\begin{aligned} \textcircled{1} \begin{cases} x^6 - 6x^3 + 5 > 0 \\ \frac{2x^2 + x + 1}{25 - x^2} > 0 \end{cases} & \quad \textcircled{1} \begin{cases} x < 1 \vee x > \sqrt[3]{5} \\ -5 < x < 5 \end{cases} \quad (*) \end{aligned}$$

$$\textcircled{1} x^6 - 6x^3 + 5 > 0 \quad (x^3 - 5)(x^3 - 1) > 0$$

$$F_1 > 0 \quad x^3 - 5 > 0 \quad x^3 > 5 \quad x > \sqrt[3]{5}$$

$$F_2 > 0 \quad x^3 - 1 > 0 \quad x^3 > 1 \quad x > 1$$



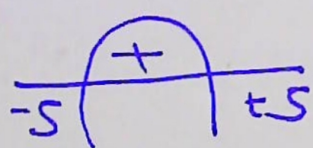
$$S_1: x < 1 \vee x > \sqrt[3]{5}$$

$$\textcircled{2} \frac{2x^2 + x + 1}{25 - x^2} > 0$$

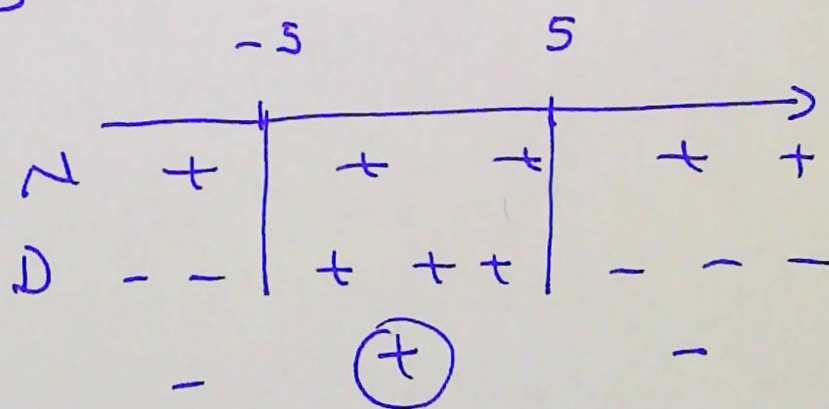
$$N > 0 \quad 2x^2 + x + 1 > 0 \quad 2x^2 + x + 1 = 0 \quad x_{1,2} = -1 \pm \sqrt{1 - 2} \quad \emptyset$$

$$D > 0 \quad 25 - x^2 > 0 \quad x^2 - 25 = 0 \quad x = \pm 5$$

$$\frac{+ \cup +}{\forall x}$$

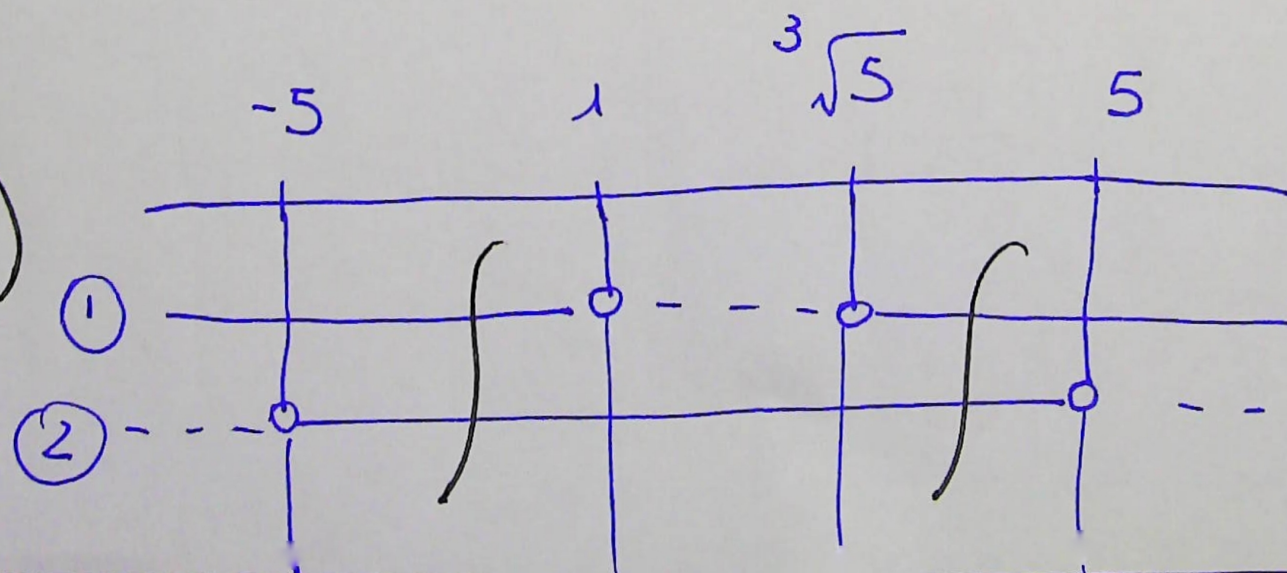


$$-5 < x < 5$$



$$S_2: -5 < x < 5$$

(*)



S_F :

$$-5 < x < 1 \vee \sqrt[3]{5} < x < 5$$