

DISINQUAZIONE IRRAZIONALE

$$2 - \sqrt{x} \geq x - 4$$

$$-\sqrt{x} \geq x - 4 - 2 \quad -\sqrt{x} \geq x - 6 \quad \sqrt{x} \leq 6 - x$$

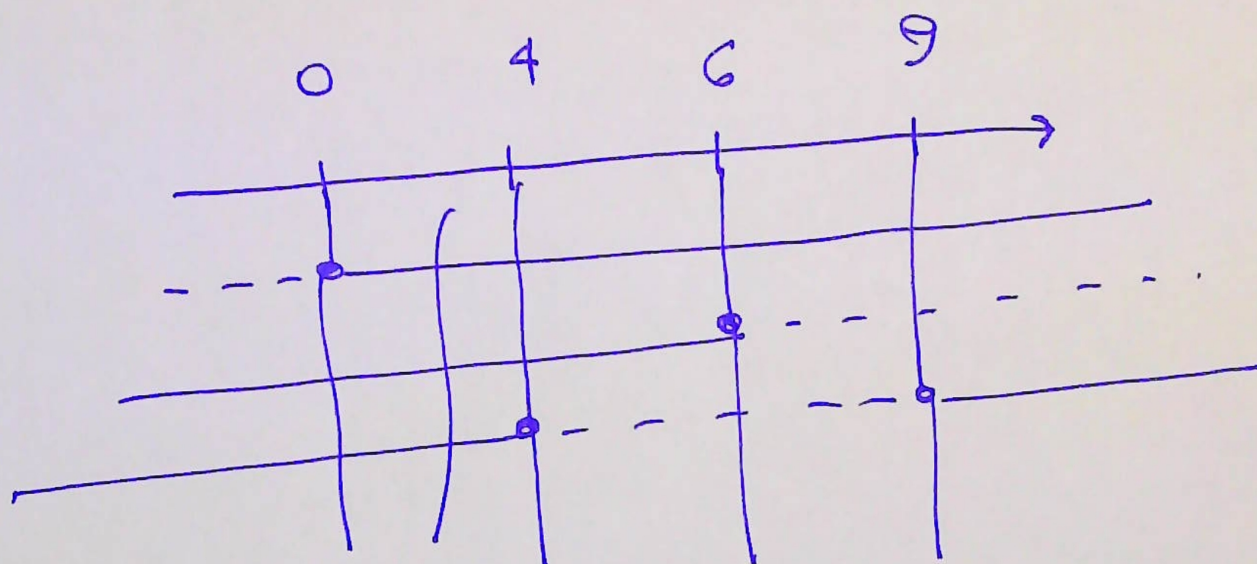
È del tipo $\sqrt{f(x)} \leq g(x) \Rightarrow \begin{cases} f(x) \geq 0 \\ g(x) \geq 0 \\ [\sqrt{f(x)}]^2 \leq [g(x)]^2 \end{cases}$

$$\begin{cases} x \geq 0 \\ 6 - x \geq 0 \\ x \leq 36 - 12x + x^2 \end{cases} \quad \begin{cases} x \geq 0 \\ x \leq 6 \\ x^2 - 13x + 36 \geq 0 \end{cases}$$

$$x^2 - 13x + 36 = 0 \quad x_{1,2} = \frac{13 \pm \sqrt{169 - 144}}{2} = \frac{13 \pm 5}{2} = \begin{matrix} 9 \\ 4 \end{matrix}$$

$\begin{matrix} + & & + \\ & \backslash & / \\ & 4 & 9 \end{matrix}$
 $x \leq 4 \vee x \geq 9$

$$\begin{cases} x \geq 0 \\ x \leq 6 \\ x \leq 4 \vee x \geq 9 \end{cases}$$



$$S_F : 0 \leq x \leq 4$$