

$\textcircled{1} \text{ss: } |x| \geq 0$
 $\begin{cases} \text{se } x \geq 0 & |x| = x \geq 0 \\ \text{se } x < 0 & |x| = -x > 0 \end{cases}$

Risolvere $|A(x)| \leq k$ significa quindi risolvere due sistemi

$$\begin{cases} A(x) \geq 0 \\ A(x) \leq k \end{cases} \quad \vee \quad \begin{cases} A(x) < 0 \\ -A(x) \leq k \end{cases}$$

$k \geq 0$

$$\left[0 \leq A(x) \leq k \quad \vee \quad -k \leq A(x) < 0 \right] \Leftrightarrow -k \leq A(x) \leq k$$

Analogamente risolvere $|A(x)| \geq k$ significa risolvere

$$\begin{cases} A(x) \geq 0 \\ A(x) \geq k \end{cases} \quad \vee \quad \begin{cases} A(x) < 0 \\ -A(x) \geq k \end{cases}$$

$$A(x) \geq k \quad \vee \quad A(x) \leq -k$$

$$A(x) \leq -k \quad \vee \quad A(x) \geq k$$