2° Para $x \in (-\sqrt{3}, -1]$: $-(x^2-3)+2 \leq (x^2-1)$

$\Leftrightarrow \quad -x^2+3+2 \leq x^2-1$

$\Leftrightarrow \quad 5-1 \leq x^2+x^2$

$\Leftrightarrow \quad 6 \leq 2x^2$

$\Leftrightarrow \quad 2x^2 \geq 6$

$\Leftrightarrow \quad x^2 \geq 3$

$\Leftrightarrow \quad (x^2-3) \geq 0$

$\Leftrightarrow \quad (x-\sqrt{3})(x+\sqrt{3}) \geq 0$

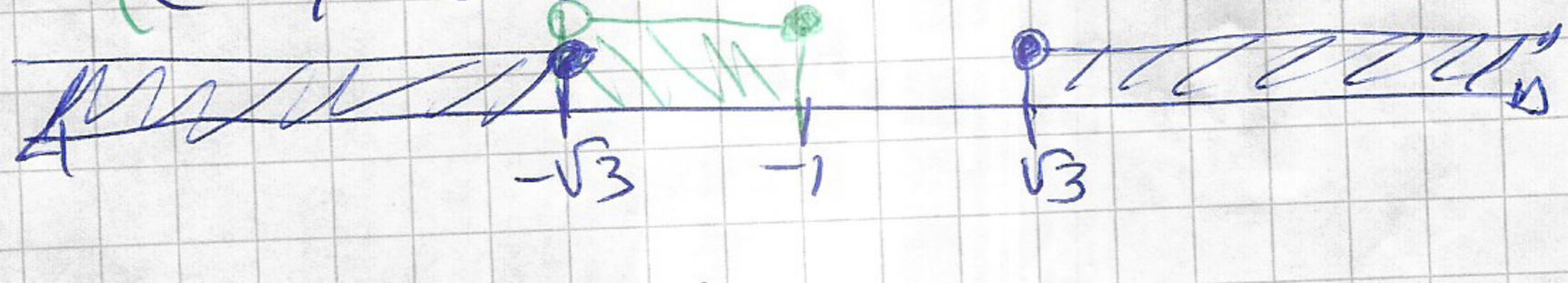
$x^2-3 = x^2-\sqrt{3}^2$
$x^2-3 = x^2-(\sqrt{3})^2$

	$-\infty$		$-\sqrt{3}$		$\sqrt{3}$		∞
$x-\sqrt{3}$		−		−		+	
$x+\sqrt{3}$		−		+		+	
		+		−		+	

Luego: $(-\infty, -\sqrt{3}] \cup [\sqrt{3}, +\infty)$

Ahora intersecamos:

$((-\infty, -\sqrt{3}] \cup [\sqrt{3}, +\infty)) \cap (-\sqrt{3}, -1]$



$\therefore C.S_2 = \emptyset$.