

$$|x+2| < 1 + |x-1|$$

$$\begin{cases} x+2 \geq 0 \\ x-1 \geq 0 \\ x+2 < 1 + x-1 \end{cases}$$

$$\begin{cases} x+2 \geq 0 \\ x-1 < 0 \\ x+2 < 1 + (1-x) \end{cases}$$

$$\begin{cases} x+2 < 0 \\ x-1 \geq 0 \\ -x-2 < \cancel{1} \end{cases}$$

$$\begin{cases} x+2 < 0 \\ x-1 < 0 \\ -x-2 < 2-x \end{cases}$$

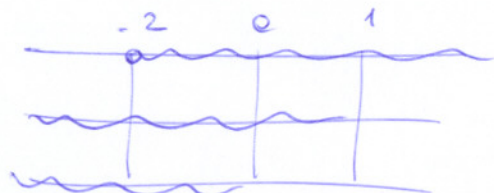
$$\begin{cases} x \geq -2 \\ x \geq 1 \\ 2 < 0 \end{cases} \quad \vee$$



$\emptyset$

$\cup$

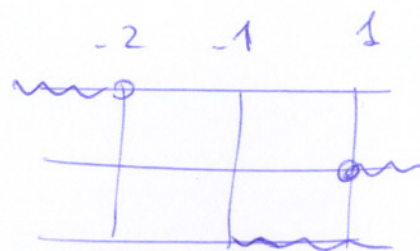
$$\begin{cases} x \geq -2 \\ x < 1 \\ x < 0 \end{cases} \quad \vee$$



$[-2, 0)$

$\cup$

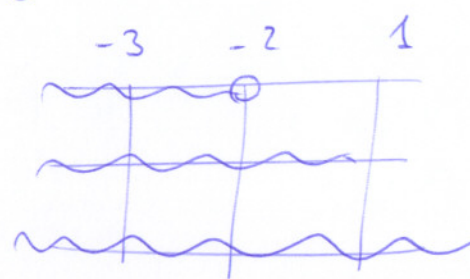
$$\begin{cases} x < -2 \\ x \geq 1 \\ x > -1 \end{cases} \quad \vee$$



$\emptyset$

$\cup$

$$\begin{cases} x < -2 \\ x < 1 \\ -2 < 2 \end{cases}$$



$(-\infty, -2)$

Solution

$$(-\infty, 0) = \{x \in \mathbb{R} \mid x < 0\}$$