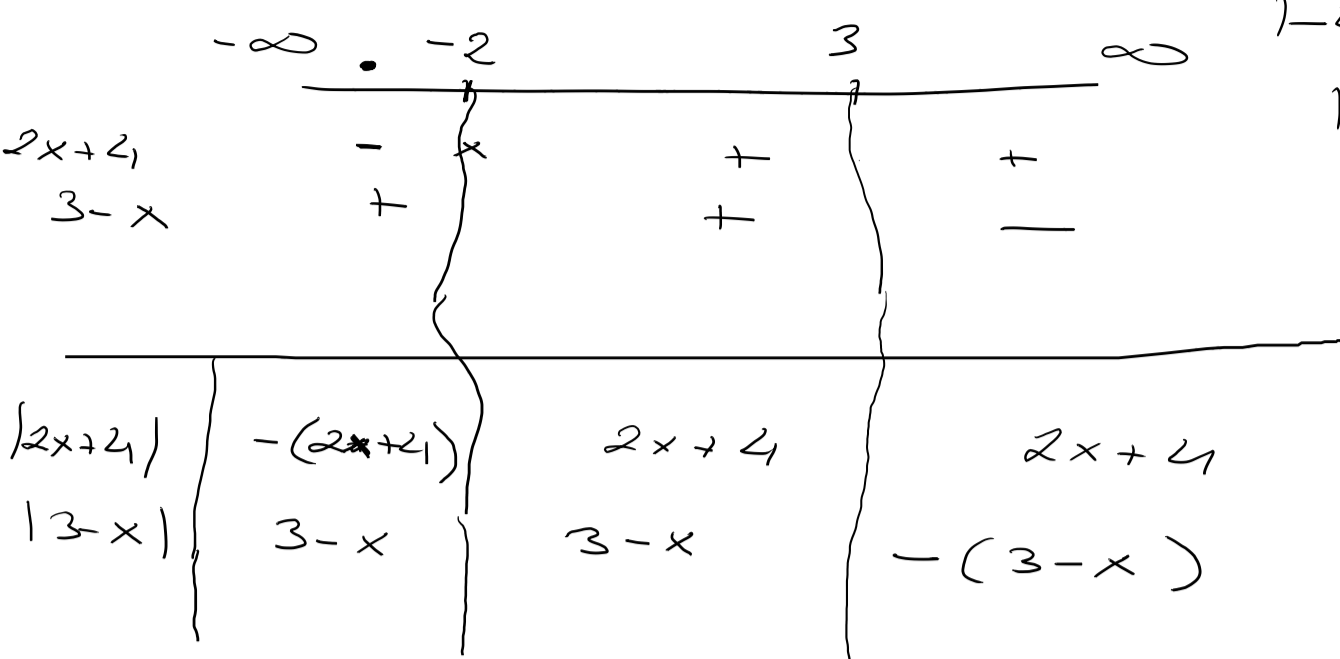


$$|2x+4| \leq 6 + |3-x|$$

$$\bullet \underline{2x+4 \leq 6 + 3-x}$$

$$(1) \begin{array}{l} 2x+4=0 \\ 3-x=0 \end{array} \quad \begin{array}{l} 2x=-4 \quad x=-2 \\ x=3 \end{array}$$

$$\bullet \begin{array}{l} |4| = 4 \\ |4| = 4 \\ |-4| = -(-4) = 4 \\ |0| = 0 \\ |0| = -0 \end{array}$$



$ 2x+4 $	$-(2x+4)$	$2x+4$	$2x+4$
$ 3-x $	$3-x$	$3-x$	$-(3-x)$

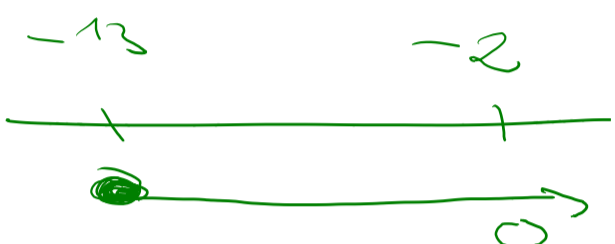
$$x \in (-\infty, -2)$$

$$-(2x+4) \leq 6 + 3-x$$

$$-2x-4 \leq 9-x$$

$$\underline{-13 \leq x}$$

$$x \in [-13, -2)$$



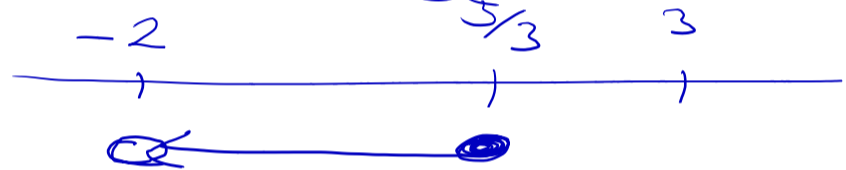
OR

$$x \in (-2, 3)$$

$$2x+4 \leq 6 + 3-x$$

$$3x \leq 5$$

$$x \leq \frac{5}{3}$$



$$x \in (-2, \frac{5}{3}]$$

$$x \in (3, \infty)$$

$$2x+4 \leq 6 - (3-x)$$

$$2x+4 \leq 6-3+x$$

$$x \leq -1$$



OR

$$x = -2$$

$$x = -2$$

$$|2(-2)+4| \leq 6 + |3-(-2)|$$

$$0 \leq 6 + 5 \quad \checkmark$$

$$x = 3$$

$$|2 \cdot 3 + 4| \leq 6 + |3-3|$$

$$10 \leq 6$$

$$x \neq 3 \quad \checkmark$$

Conclusion

$$x \in [-13, -2) \cup \{-2\}$$

$$\cup (-2, \frac{5}{3}]$$

$$x \in [-13, \frac{5}{3}]$$