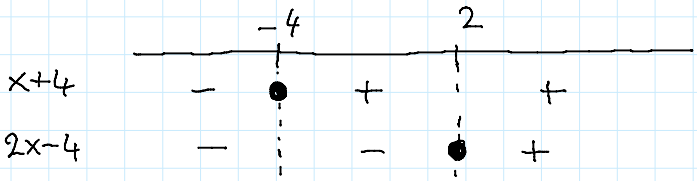
ESERCIZIO N. 3

domenica 8 dicembre 2024 10:52

PROVA 1 $\quad |x+4| - 2 = |2x-4| + x$

$x+4 \geq 0 \Rightarrow x \geq -4$

$2x-4 \geq 0 \Rightarrow x \geq 2$



- $x < -4$

$-x-4-2 = -2x-4+x \Rightarrow 0x = 2$ eq. impossibile; $S_1 = \phi$

- $-4 \leq x \leq 2$

$x+4-2 = -2x+4+x \Rightarrow 2x = 2 \Rightarrow x = 1$; $S_2 = \{1\}$

- $x > 2$

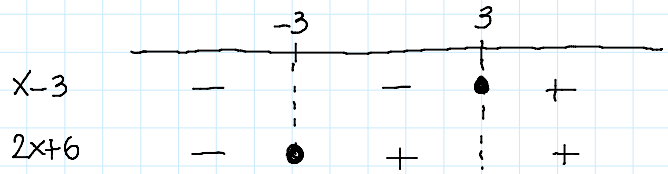
$x+4-2 = 2x-4+x \Rightarrow 2x = 6 \Rightarrow x = 3$; $S_3 = \{3\}$

In definitive la soluzione è $S_1 \cup S_2 \cup S_3 = S = \{1, 3\}$

PROVA 2 $\quad |x-3| + 3 = |2x+6| - x$

$x-3 \geq 0 \Rightarrow x \geq 3$

$2x+6 \geq 0 \Rightarrow x \geq -3$



- $x < -3$

$-x+3+3 = -2x-6-x$

$2x = -12 \Rightarrow x = -6$; $S_1 = \{-6\}$

- $-3 \leq x \leq 3$

$-x+3+3 = 2x+6-x \Rightarrow 2x = 0 \Rightarrow x = 0$; $S_2 = \{0\}$

- $x > 3$

$x-3+3 = 2x+6-x \Rightarrow 0x = -6$; $S_3 = \phi$

In definitive la soluzione è $S_1 \cup S_2 \cup S_3 = S = \{-6, 0\}$