

3.25
1

all the solutions in the interval $[-1, 1]$ are $y = |x+1| - |x-1|$

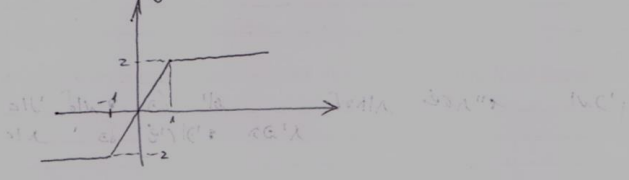
- $x \leq -1$
- $-1 < x \leq 1$
- $1 < x$

$y = -(x+1) + (x-1) = -2$

(constant function)

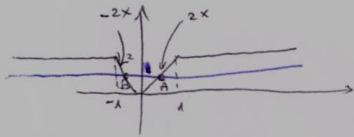
$y = x+1 + x-1 = 2x$

$y = x+1 - (x-1) = 2$



$y = ||x+1| - |x-1||$

(V-shaped)



$2x = 1 \rightarrow x = \frac{1}{2}$:A

$y = 1$ at $x = \frac{1}{2}$ (local maximum)

$-2x = 1 \rightarrow x = -\frac{1}{2}$:B

$-\frac{1}{2} < x < \frac{1}{2}$ (interval of local minimum)