Solución.

Como $[-1,1] = [-1,0\rangle \cup [0,1]$, la hipótesis puede escribirse en 2 casos:

Caso 1. *Cuando* $x \in [-1,0\rangle$		Caso 2. *Cuando* $x \in [0,1]$	
(1)	$\lvert x\rvert = -x$	(1)	$\lvert x\rvert = x$
(2)	$E = \left[\!\left[\frac{\lvert x\rvert-2}{3-x}\right]\!\right] = \left[\!\left[\frac{-x-2}{3-x}\right]\!\right]$	(2)	$E = \left[\!\left[\frac{\lvert x\rvert-2}{3-x}\right]\!\right] = \left[\!\left[\frac{x-2}{3-x}\right]\!\right]$
(3)	$E = \left[\!\left[1 + \frac{5}{x-3}\right]\!\right]$	(3)	$E = \left[\!\left[-1 + \frac{1}{3-x}\right]\!\right]$
(4)	$-1 \leq x < 0$	(4)	$0 \leq x \leq 1$
(5)	$-4 \leq x-3 < -3$	(5)	$2 \leq 3-x \leq 3$
(6)	$-\frac{1}{3} < \frac{1}{x-3} < -\frac{1}{4}$	(6)	$\frac{1}{3} \leq \frac{1}{3-x} \leq \frac{1}{2}$
(7)	$-\frac{5}{3} < \frac{5}{x-3} < -\frac{5}{4}$	(7)	$-\frac{2}{3} \leq \frac{1}{3-x} \leq -\frac{1}{2}$
(8)	$-\frac{2}{3} < 1 + \frac{5}{x-3} < -\frac{1}{4}$	(8)	$-1 \leq -\frac{2}{3} < -1 + \frac{1}{3-x} \leq -\frac{1}{2} < 0$
(9)	$-1 \leq -\frac{2}{3} < 1 + \frac{5}{x-3} < -\frac{1}{4} < 0$	(9)	$-1 \leq \frac{x-2}{3-x} < 0$
(10)	$-1 \leq \frac{-x-2}{3-x} < 0$	(10)	$-1 \leq \frac{\lvert x\rvert-2}{3-x} < 0$
(11)	$\therefore \left[\!\left[\frac{\lvert x\rvert-2}{3-x}\right]\!\right] = -1$	(11)	$\therefore \left[\!\left[\frac{\lvert x\rvert-2}{3-x}\right]\!\right] = -1$

Rpta: $E = -1\,,\ \forall\, x \in [-1,1]$ ■