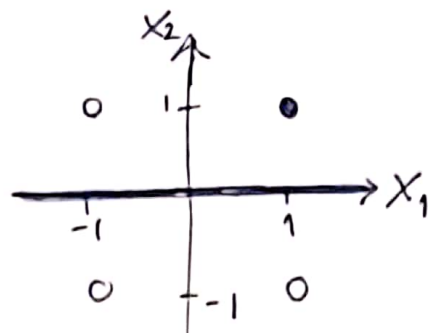


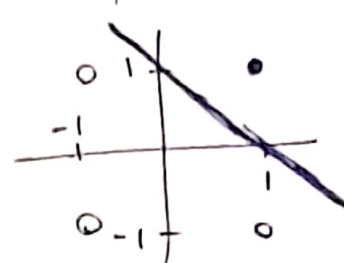
3) PERCEPTRÓN

1.

Frontera antes 1ª etapa: $w_1 = w_2 = b = 0$
 $\Rightarrow x_2 = 0$



Frontera después 1ª época: $w_1 = w_2 = 1, b = -1$
 $\Rightarrow x_2 = -x_1 + 1$



Frontera después 2ª época: $w_1 = w_2 = 1, b = -1$
 $\Rightarrow x_2 = -x_1 + 1$
 no cambia

15. $\alpha = 1$ $\theta = 0$ (decisión propia, no especificado)

x_1	x_2	x_3	x_4	$\mathbb{1}$	t	y	Δw_1	Δw_2	Δw_3	Δw_4	Δb	w_1	w_2	w_3	w_4	b
1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1
-1	1	-1	-1	1	1	-1	-1	1	-1	-1	1	0	2	0	0	2
1	1	1	-1	1	-1	1	-1	-1	-1	1	-1	-1	1	-1	1	1
1	-1	-1	1	1	-1	1	-1	1	1	-1	-1	-2	2	0	0	0
1	1	1	1	1	1	0	1	1	1	1	1	-1	3	1	1	1
-1	1	-1	-1	1	1	1	0	0	0	0	0	-1	3	1	1	1
1	1	1	-1	1	-1	1	-1	-1	-1	1	-1	-2	2	0	2	0
1	-1	-1	1	1	-1	-1	0	0	0	0	0	-2	2	0	2	0

$$[-2x_1 + 2x_2 + 2x_4 = 0] \text{ frontera}$$

$$(1 \ 1 \ 1 \ 1) \rightarrow 2 > 0 \Rightarrow \text{clase } 1 \checkmark$$

$$(-1 \ 1 \ -1 \ -1) \rightarrow 2 + 2 - 2 = 2 > 0 \Rightarrow \text{clase } 1 \checkmark$$

$$(1 \ 1 \ 1 \ -1) \rightarrow -2 + 2 - 2 = -2 < 0 \Rightarrow \text{clase } -1 \checkmark$$

$$(1 \ -1 \ -1 \ 1) \rightarrow -2 - 2 + 2 = -2 < 0 \Rightarrow \text{clase } -1 \checkmark$$