

Truth Table

x_1	x_2	y
0	0	0
1	0	1
0	1	1
1	1	0

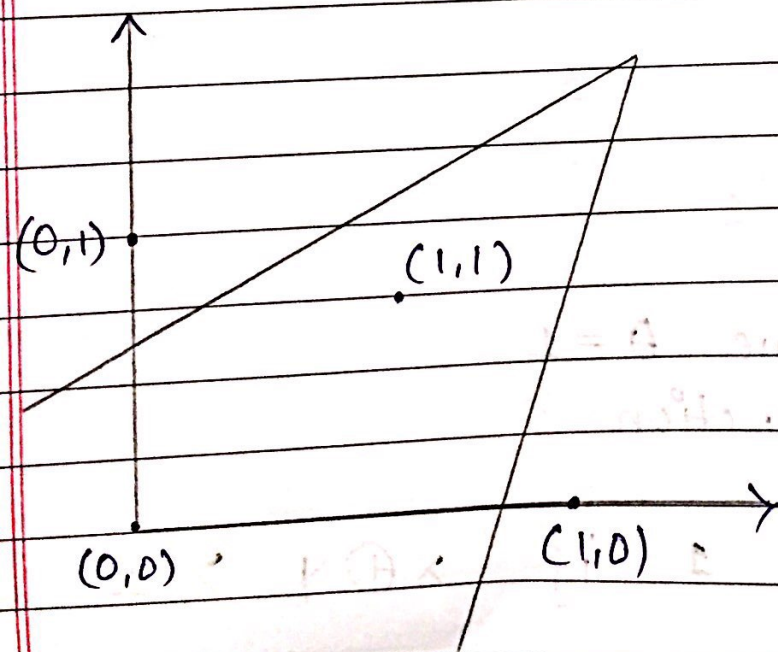
$$O/P = w_1 x_1 + w_2 x_2 + w_0$$

$$\text{Threshold} = \theta = 1$$

$$\text{Bias} = w_0 = -\theta = -1$$

Here $y = x_1 \oplus x_2$

Now plotting the graph



$$w_0 + w_1 \cdot 0 + w_2 \cdot 0 < 0$$

$$\Rightarrow w_0 < 0$$

$$w_0 + w_1 + 0 \cdot w_2 > 0$$

$$\Rightarrow w_1 > -w_0$$

$$w_0 + w_1 \cdot 0 + w_2 > 0$$

$$\Rightarrow w_2 > -w_0$$

$$w_0 + w_1 \cdot 0 + w_2 \cdot 0 < 0$$

$$\Rightarrow w_0 < 0$$