	Problem 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1.)	For NAND function, the -ve 4 the +ve classe are linearly separable.
	are linearly separable.
	-ve tre tre
	(0,1)
	tue -ve tuel
	tve -ve
	WAND
	We can see from above that it is brearly separable.
	separable.
	74-=1-2-3
2)	Decision Boundary = x, + x2 - /2 20
	Decision Boundary = $x_1 + x_2 - 1/2 = 0$ $\therefore w_1 = [, w_2 =], b = -0.5$
	31-531-040-44 25-60 + 25-00
	P(0, 1)
	: w,x,+ w2x2+b= 0+1#c0-0.5=0.5
	+vc
	fail . Update weights of bins
	$\omega_1 = \omega_1 - \alpha_1 = 1$
	b= b-1=-1.5
	9 9 1- 1-3

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P2(1,1)
: w/x/+w22+6=01+0-15= -0.5
: fail : Update weight of bias
  w_1 = w_1 + x_1 = 2
    W2 = W2 + x2= 1
     b= b+1= -0.5
13(1,0)
  W, x, + W2 2/2 + b = 2 + 0 - 0.5 = 1.5
Ros fail ! Upate weight & bias
 \omega_1 = \omega_2 = 1
    W2 = W2 - 22 = 1
    b=b-1=-1.5
P4(0,0)
   w, 2, + w, x2 +b = 0+0-1.5=-1.5
   - - VC
 Pass
P, (0,1)
   W, 2, + w2 x2+ b= 0+1-1.5=-0.5
    · Pay
```

 $P_{2}(1,1)$ $w_{1}x_{1} + w_{2}x_{2} + b = 1 + 1 - 1.5 = 0.5$ $w_{1}x_{1} + w_{2}x_{3} + b = 1 + 1 - 1.5 = 0.5$ $w_{1}x_{1} + w_{2}x_{3} + b = 1 + 1 - 1.5 = 0.5$

 $P_3(1,0)$ $w_1x_1 + w_2x_2 + b = 1 + 0 - 01.5 = -0.5$ $v_1v_2 + v_3v_4 + v_3v_4 + v_3v_5 +$

Fine decision boundary boundary $\omega_1 \times 1 + \omega_2 \times 2 + b = 0$ $\chi_1 + \chi_2 - 1.5 = 0$