1 ~ 2.

$$y = \begin{cases} 0, & \text{if } w_1 x_1 + w_2 x_2 + b \leq 0 \\ 1, & \text{if } w_1 x_1 + w_2 x_2 + b > 0 \end{cases}$$

1.

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

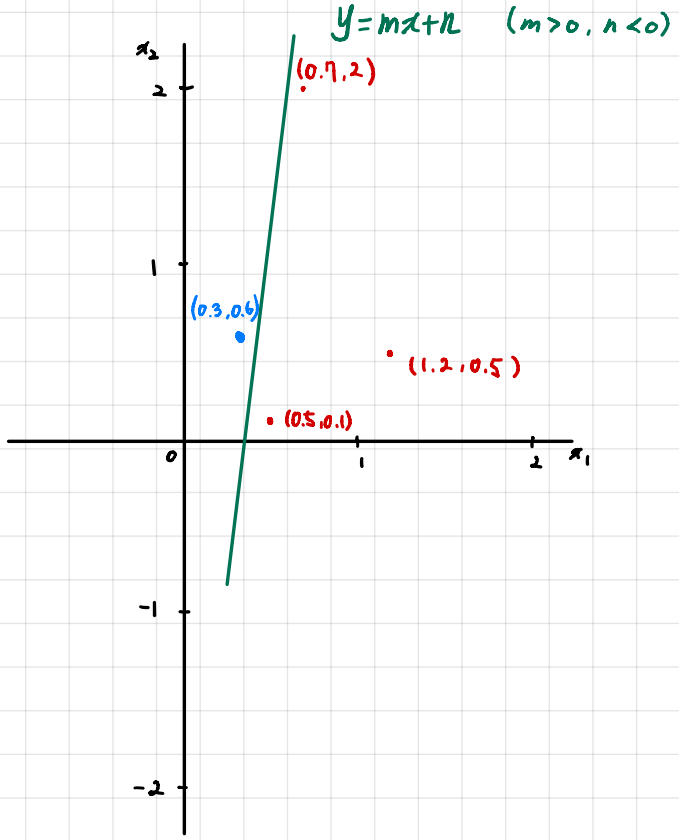
$\Rightarrow$ $w_1 = -0.7$, $w_2 = 0.7$, $b = -0.5$

2.

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

$\Rightarrow$ $w_1 = 0.7$, $w_2 = 0.7$, $b = 0.5$

3. $y = \begin{cases} -1, & \text{if } w_1 x_1 + w_2 x_2 + b \le 1 \\ 1, & \text{if } w_1 x_1 + w_2 x_2 + b > 1 \end{cases}$



x_1	x_2	y
0.3	0.6	-1
0.5	0.1	1
0.7	2	1
1.2	0.5	1

$a = mx_1 - x_2 + n$

$h(a) = \begin{cases} -1 & a \le 1 \\ 1 & a > 1 \end{cases}$

$0.3m - 0.6 + n \le 1$
$0.5m - 0.1 + n > 1$
$0.7m - 2 + n > 1$
$1.2m - 0.5 + n > 1$

if $n = -2$
$0.3m \le 3.6$
$0.5m > 3.1$
$0.7m > 5$
$1.2m > 7/2$

$\Rightarrow m = 8, \ n = -2$

$\Rightarrow w_1 = 8, \ w_2 = -1, \ b = -2$