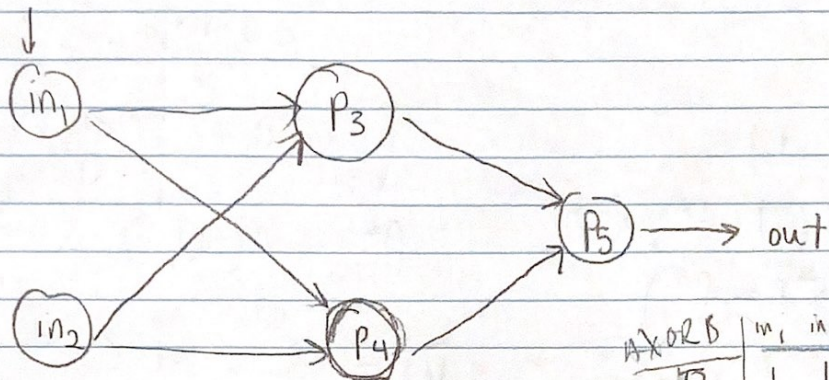


$$A \text{ XOR } B = (A \text{ OR } B) \text{ AND NOT}(A \text{ AND } B)$$

$$(A+B) \cdot \overline{A \cdot B}$$

input layer

perceptron₃ = p₃



$$w_{1,3} = 1$$

$$w_{2,3} = 1$$

$$b_3 = 0$$

$$w_{1,4} = -1$$

$$w_{2,4} = -2$$

$$b_4 = 3$$

$$w_{1,5} = 1$$

$$w_{2,5} = 2$$

$$b_5 = -2$$

A XOR B	in ₁	in ₂	A+B	A·B	A·B
0	1	1	1	3	0
1	1	0	1	2	0
1	0	1	1	1	0
0	0	0	0	0	1

$$8+4+1+0=14$$

$$\vec{w}_3 = \langle 1, 1 \rangle$$

$$b_3 = 0$$

$$\vec{w}_4 = \langle -1, -2 \rangle$$

$$b_4 = 3$$

$$\vec{w}_5 = \langle 1, 2 \rangle$$

$$b_5 = -2$$