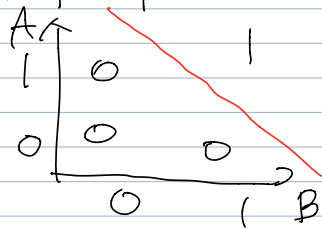
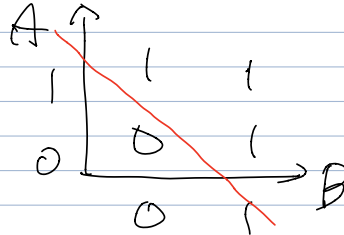


## Lab-08-1 Perceptron

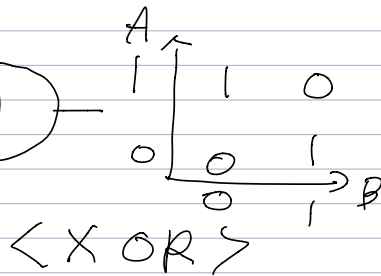
첫째 perceptron은 AND, OR 문제를 해결하기 위해 만들어짐.



<AND>



<OR>



<XOR>

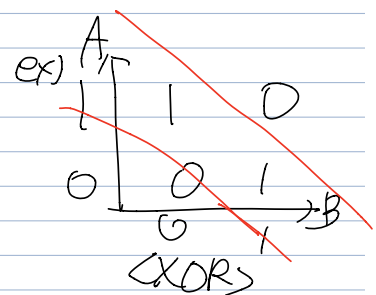
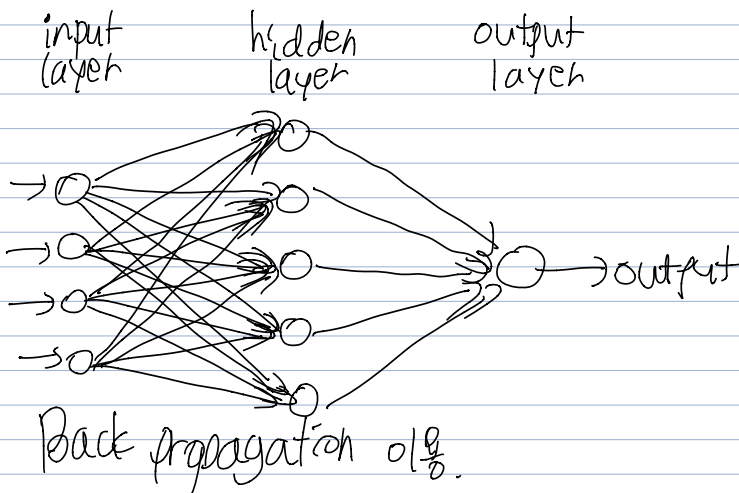
XOR은 perceptron으로 할 수 없다.  
multi-layer로만 해결할 수 있다.  
⇒ Back propagation

`sigmoid = torch.nn.Sigmoid()`

`Criterion = torch.nn.BCELoss().to(device)`

`optimizer = torch.optim.SGD(model.parameters(), lr=1)`

## Lab-08-2 <sup>여러개의 층, nn. Linear 여러개 이용</sup> Multi Layer Perceptron (MLP)



$w_1 = w_1 - \text{learning\_rate} * d\_w1$

$b_1 = b_1 - \text{learning\_rate} * \text{torch.mean}(d\_b1, 0)$