

Note:

All parts of the first homework are due on Wednesdays:

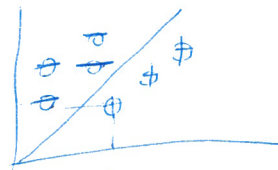
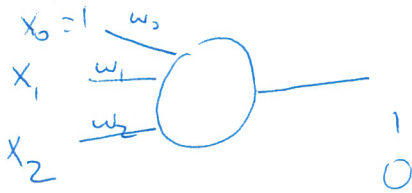
1. 1/27
2. 2/3
3. 2/10

linear regression



perceptrons

bias



1, 1, 1
1, 2, 0

$$x_0 + w_0 + x_1 w_1 + x_2 w_2 = N \quad \text{weighted sum}$$

$g(N) = \text{"activation"}$

activation function threshold function

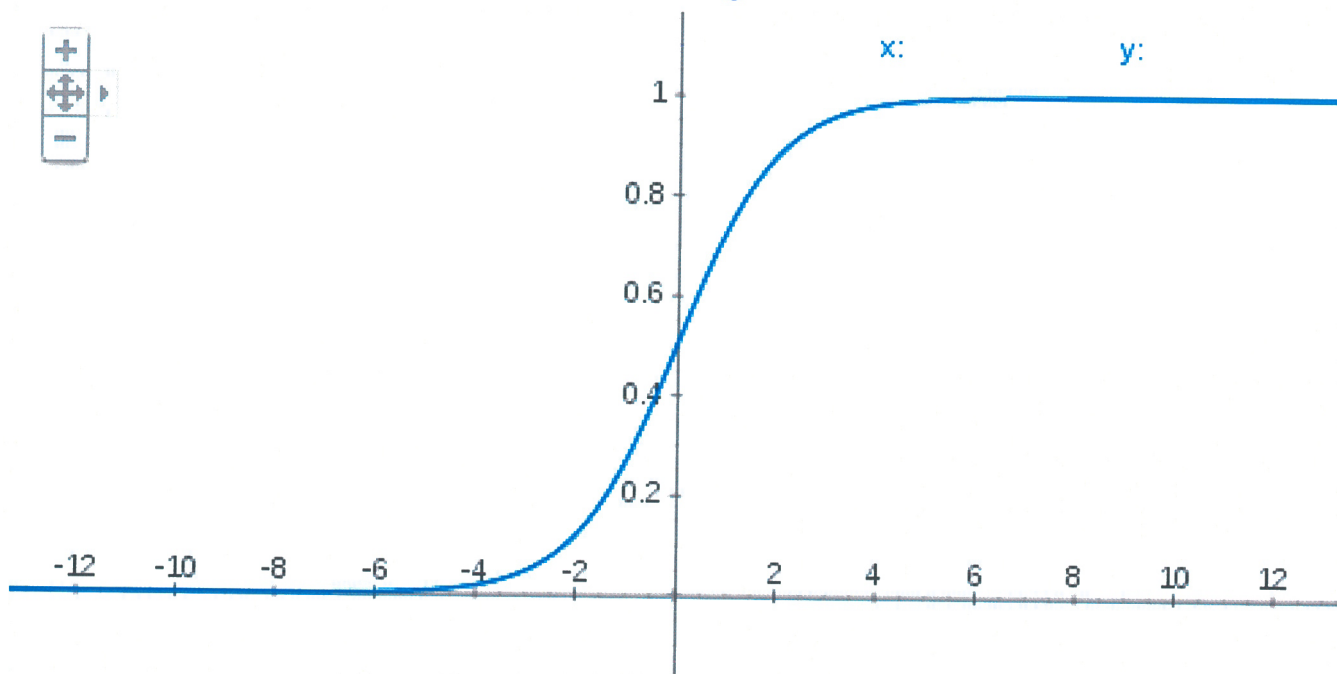


or sigmoid function

②

The sigmoid function $\frac{1}{1+e^{-x}}$

Graph for $1/(1+e^{-x})$ } You can Google this to get the graph below.



$$f(x) = \frac{1}{1+e^{-x}}$$

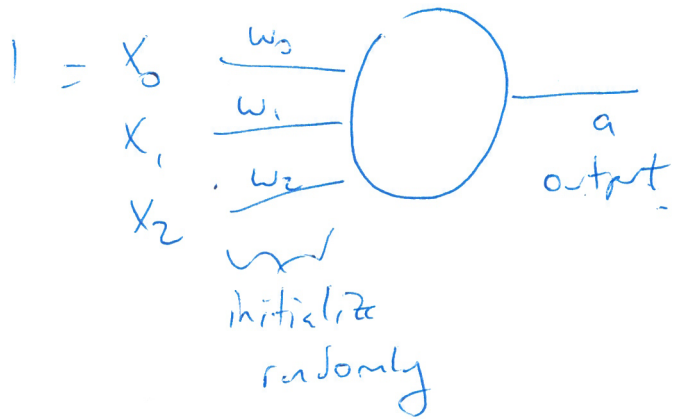
$$f' = f(1-f)$$

or if you call the function g :

$$g' = g(1-g)$$

OR

x_0	x_1	x_2	y
1	0	0	0
1	0	1	1
1	1	0	1
1	1	1	1



(not) linearly separable

