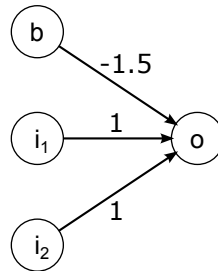


INF3490 exercises - week 6 2013

Problem 1

In the perceptron below, what is will the output be when the input is $(0,0)$? How about inputs $(0,1)$, $(1,1)$ and $(1,0)$? What if we change the bias weight to -0.5 ?



Problem 2

Work out the perceptrons that construct logical NOT, NAND, and NOR of their inputs.

Problem 3

The figure below shows a multilayer perceptron that constructs the XOR function. How would you rewrite it to construct the binary equivalence function (i.e. the output is above threshold when both inputs are either 0 or 1)? Can you construct it so that it will detect equivalence for any combination of integer inputs?

