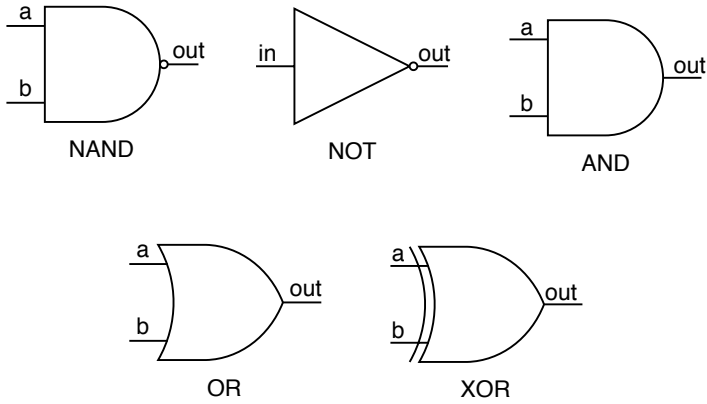


LEGEND:



Homework #1

CS220 - Computer Architecture + Machine Language

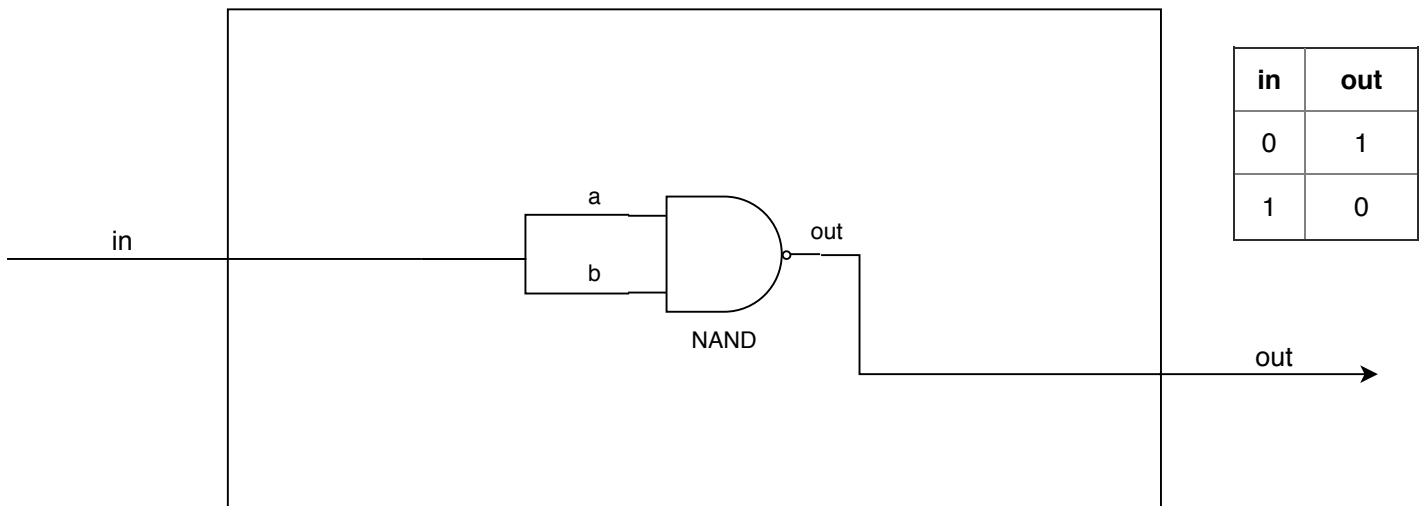
Author: King

Section: 2653 M/W 3:30pm - 5:20pm

Last Modified: 26 January, 2019

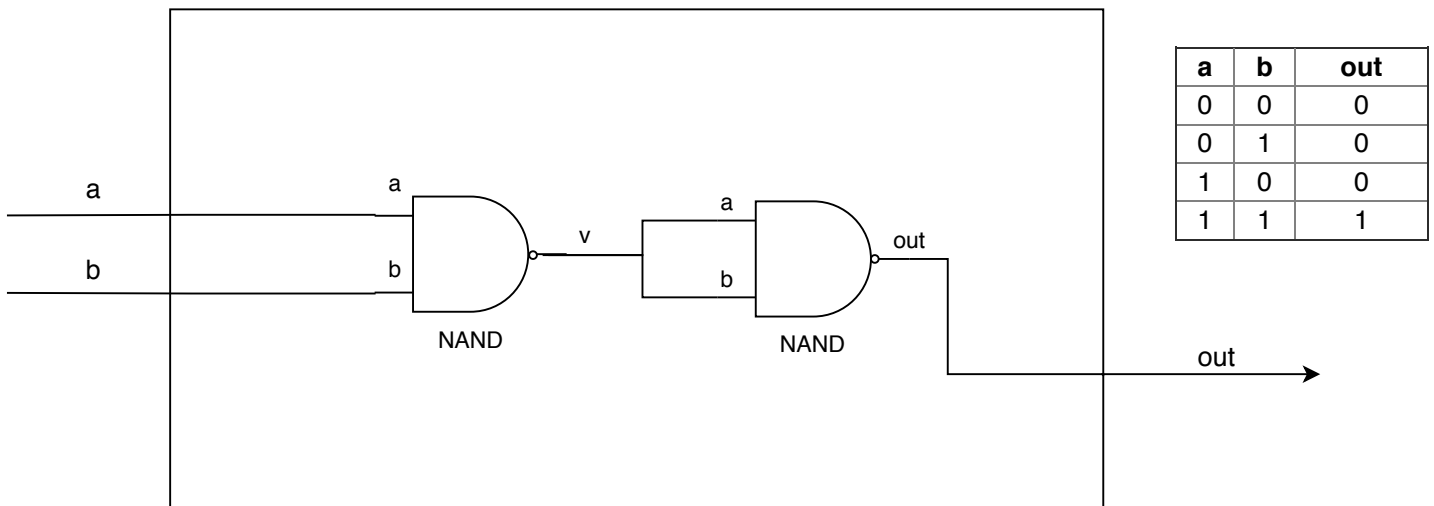
Not

out = Nand(in, in)



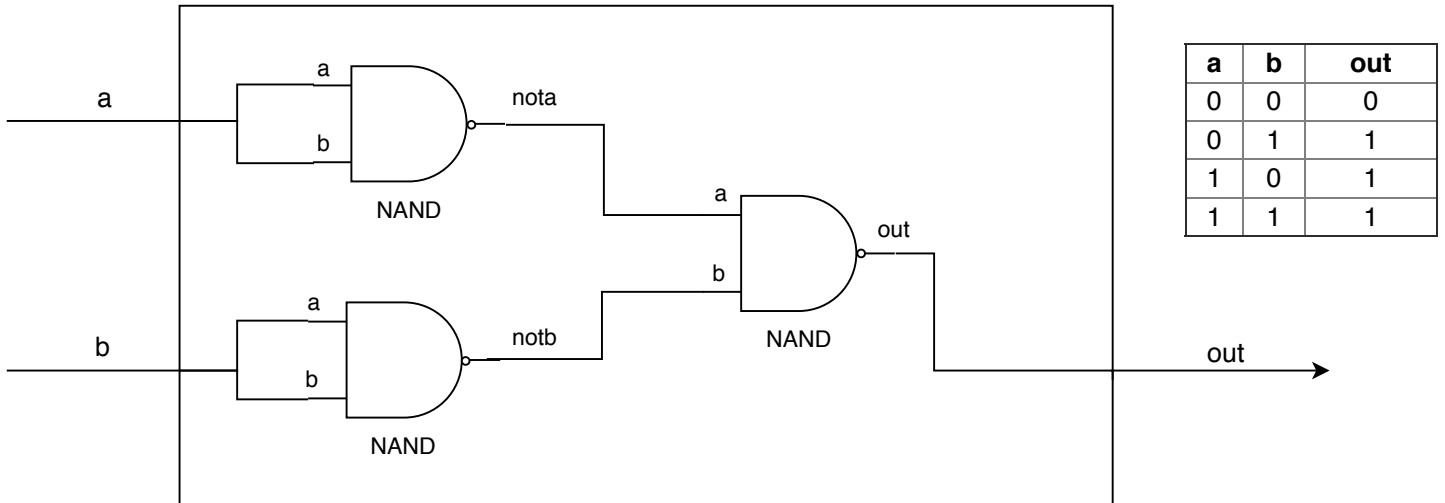
And

out = Nand(Nand(a, b), Nand(a, b))



Or

$$\text{out} = \text{Nand}(\text{Nand}(a, a), \text{Nand}(b, b))$$



Xor

$$\text{out} = \text{Nand}(\text{Nand}(a, \text{Not}(b)), \text{Nand}(\text{Not}(a), b))$$

