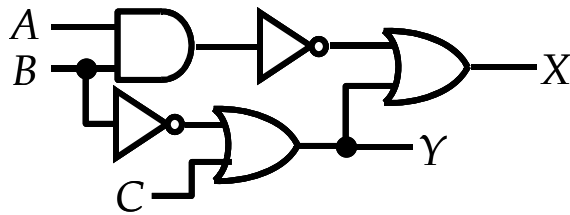


CSE 260M - Homework 2

Due September 13

1. How would you represent the following numbers in 8-bit 2's complement: (a) 78, (b) -78, (c) 128, (d) -128?
2. Write a machine-language program similar to the one on page 1-18 of the course notes. Your program should add the values stored at odd addresses between 0 to 9 and subtract from this the sum of the values stored at even addresses between 0 and 9. Clearly indicate where the result is stored and also indicate where any other "variables" are located.
3. Write a machine- language program to convert an internally stored value to the corresponding sequence of ASCII character codes (see page 1-21 of the notes).
4. Construct a timing diagram for the circuit shown below, assuming inputs ABC are all low from time 0 to 10, $ABC=LLH$ from time 10 to 20 (where L denotes low, H denotes high), $ABC=LHL$ from time 20 to 30, $ABC=LHH$ from time 30 to 40, $ABC=HLL$ from time 40 to 50, $ABC=HLH$ from time 50 to 60, $ABC=HHL$ from time 60 to 70, $ABC=HHH$ from time 70 to 80.



5. Show the truth table of all possible input values for the following logic circuit

