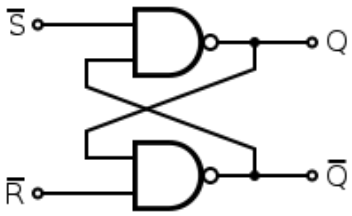
Lecture 4- Worksheet

Question 1:

The ALU described in table 2.6 in the textbook (the one used in your tutorial). Doesn't have a multiply operation. Broadly describe how multiplication might be efficiently implemented using just + and – operations under the assumption that you cans store values.

Question 2:

Consider the following circuit (picture from Wikipedia)



assume that both inputs are set to 1 by default and the top output starts at zero. What happens if you temporarily set the bottom input to zero? What happens if you then temporarily set the top input to zero?

Lecture 4 worksheet

Question 3:

Why won't the following circuit work to retain values between cycles?