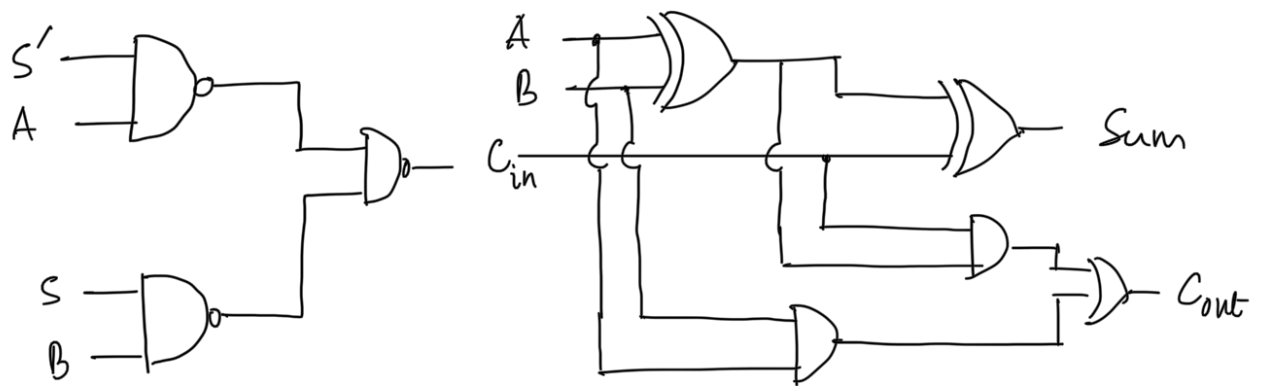


Design an adder subtractor 8bit circuit using any 2-input gates, and count the number of gates required & the delay of the circuit.

We first draw the basic circuit & then the full circuit.

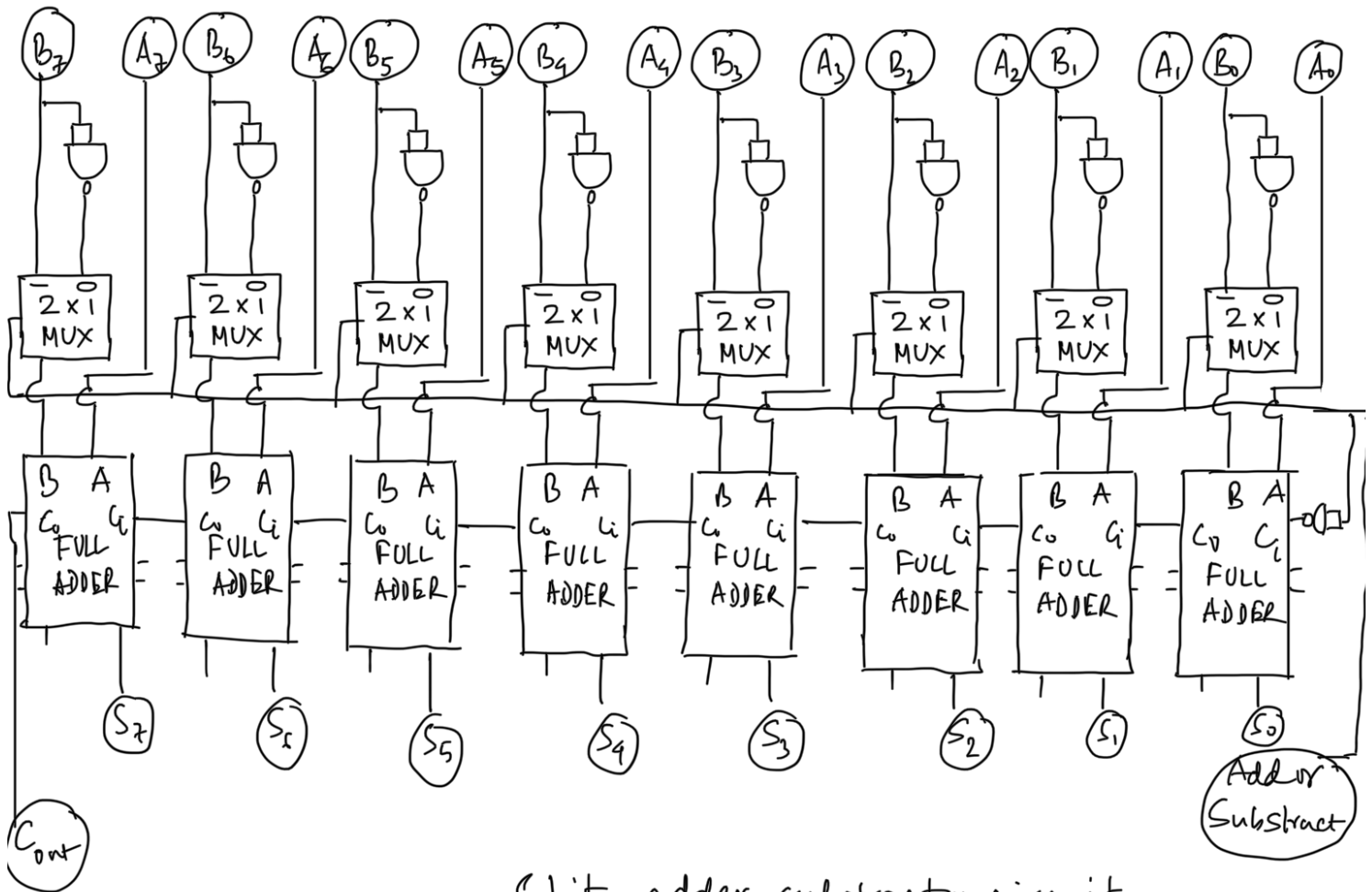


2x1 MUX

1-bit FULL ADDER

No of gates in a 2x1 MUX = 3

No of gates in a 1-bit FULL ADDER = 5



Total no. of gates =  $9 + 8(3) + 8(5) = 73$ .