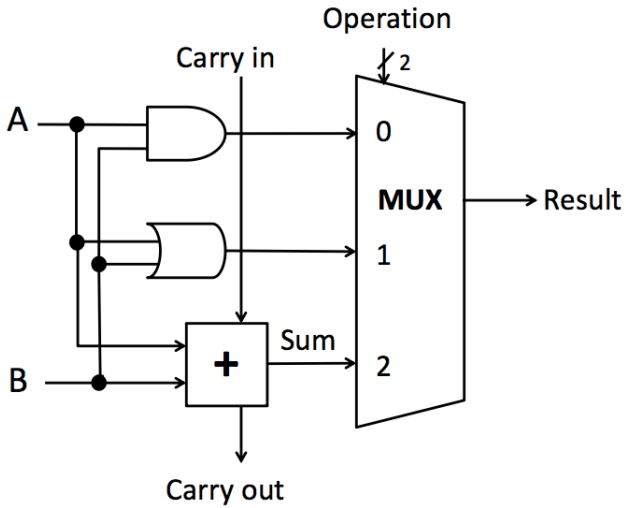


**Computer Science 240**  
**More Arithmetic and Sequential Circuits**  
 Assignment for Lab 4

1. Complete the truth table for the following circuit (the box with + is a 1-bit adder):



assume **Operation** is a 2-bit value **Op1 Op0**

<b>Op1</b>	<b>Op0</b>	<b>Result (express in terms of A and B)</b>
0	0	
0	1	
1	0	
1	1	

Describe the general purpose of this circuit:

(NOTE: wait until after the lecture on sequential circuit to complete these questions)

2. Complete the truth table for the SR latch:

<b>S</b>	<b>R</b>	<b>Q</b>	<b>Q'</b>
0	0		
0	1		
1	0		
1	1		

3. Draw the circuit diagram for the SR latch:

4. Assume the inputs are S=0 and R=0. Will the output Q be 0 or 1? Explain.