



Labwork - 5#

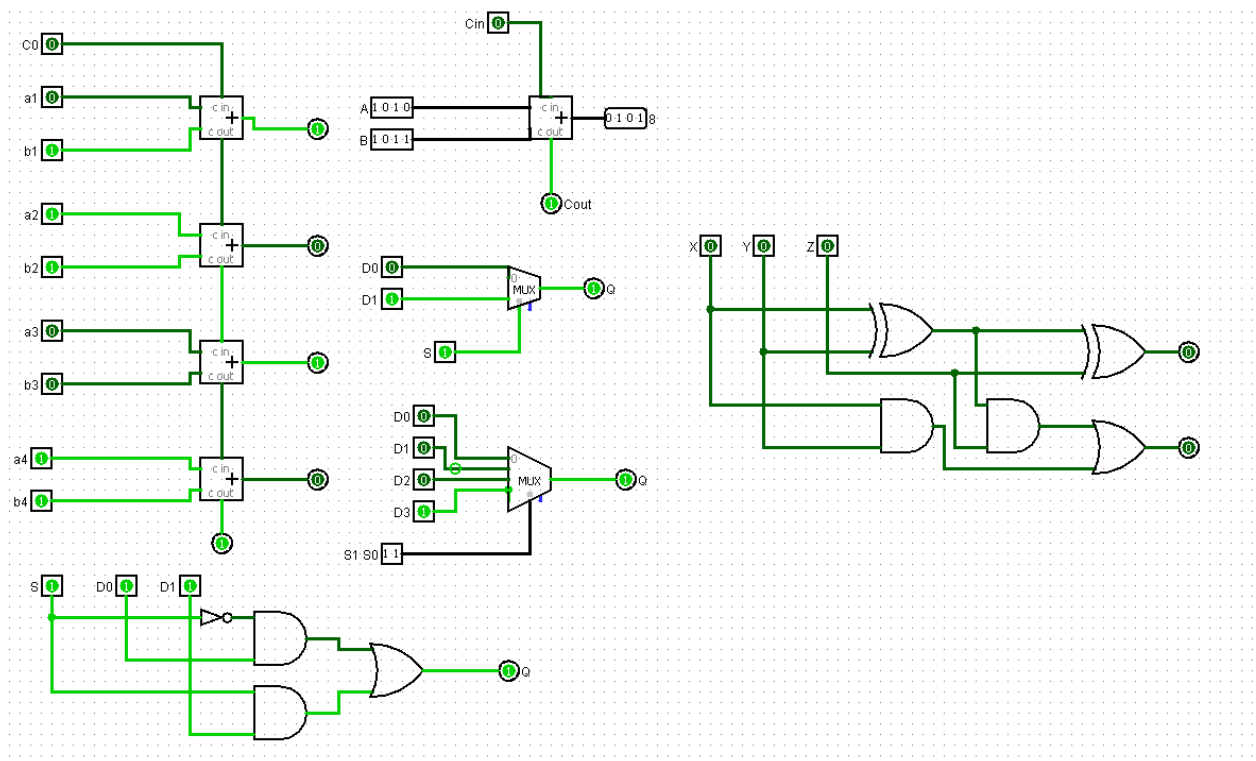
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1. Introduction

In this lab, I will work with different logic circuits, designing them using Logisim and test their outputs with truth tables. The goal was to understand how these circuits function and to compare their efficiency based on the number of gates used. Additionally, and I will test circuit behavior and how to interpret the outputs based on different input combinations. By comparing two different circuit designs.

2. Experiments



3. Results

You should give the results of each experiment. You may use the truth table to verify the circuits you designed

S	D0	D1	Q
0	0	0	0
0	0	1	0
0	1	0	1
0	1	1	1
1	0	0	0
1	0	1	1
1	1	0	0
1	1	1	1

4. Discussion

In this experiment, I designed and tested circuits using Logisim. After constructing the circuits, I used a truth table to verify that the outputs were correct for all possible input combinations. Both circuits produced the expected results. However, when comparing the two designs, I noticed that one circuit was more complex, using more gates than the other. As a result, the simpler circuit was more efficient in terms of speed, power consumption, and cost.