Date:

# EXPERIMENT NO. 4

#### AIM: Implement arithmetic and logic unit circuits in Logisim.

#### OBJECTIVES:

#### Implement 1-bit, 2-bit, 4-bit and 8-bit arithmetic unit circuits

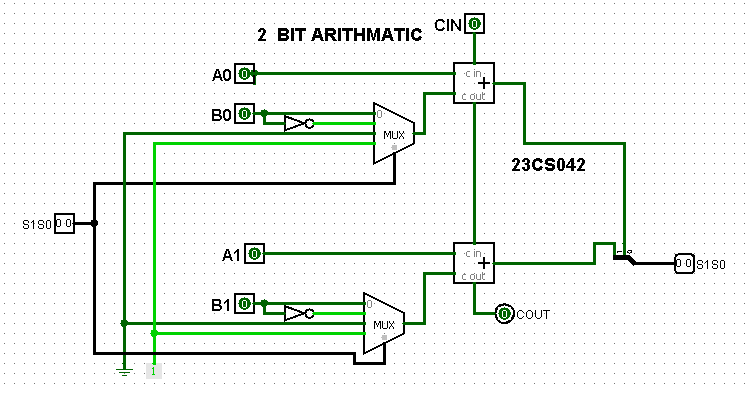
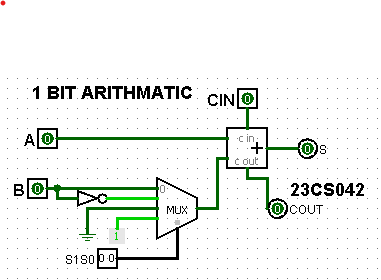
#### Implement 1-bit, 2-bit, 4-bit and 8-bit logical unit circuits for four logical functions

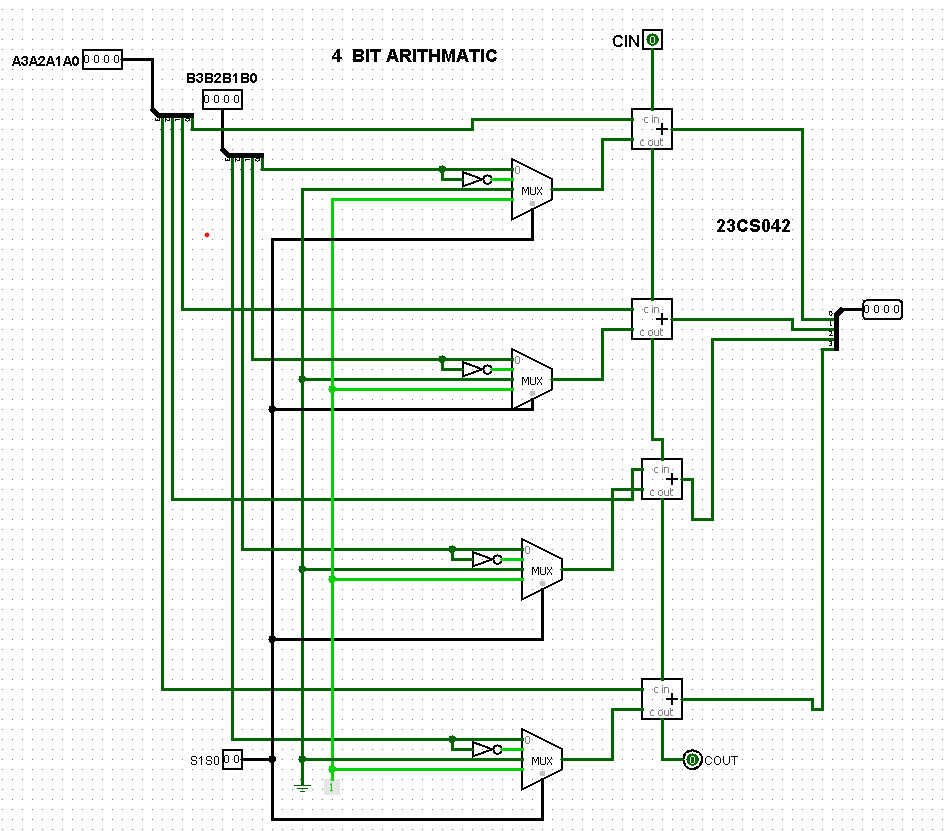
#### Implement 1-bit and 2-bit logical unit circuits for sixteen logical functions

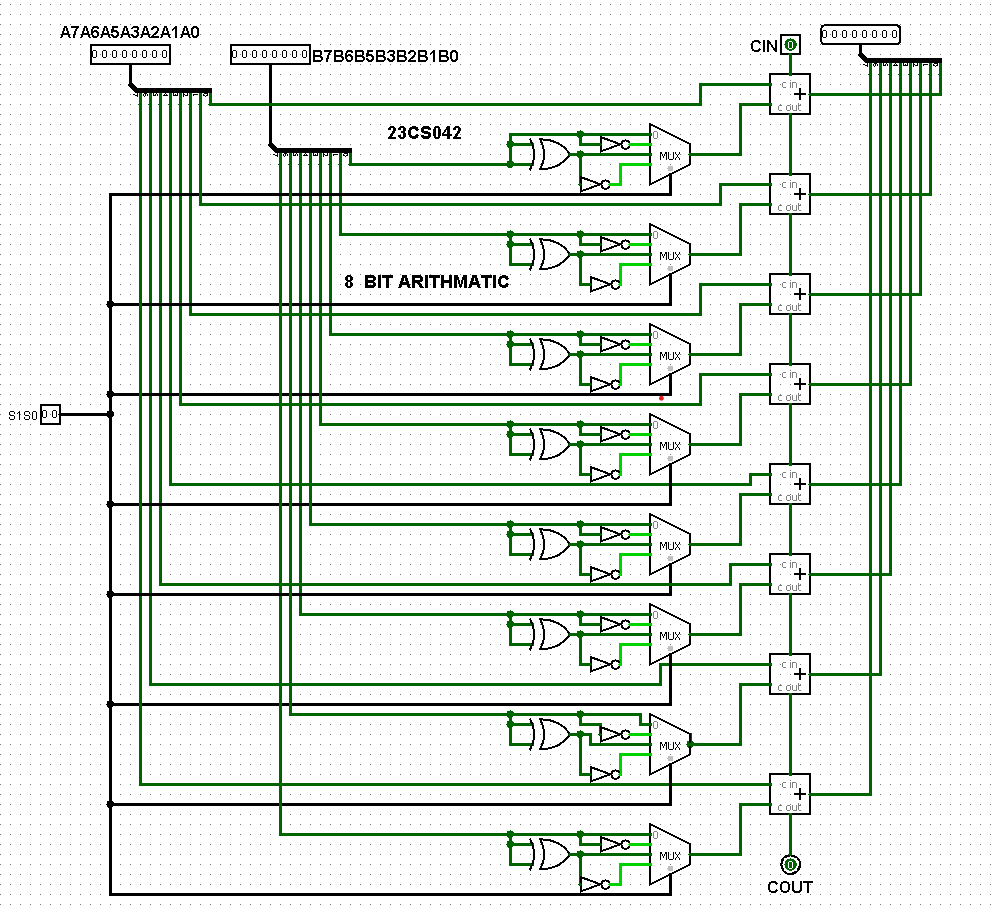
#### Implement 2-bit, 4-bit and 8-bit bidirectional shifter

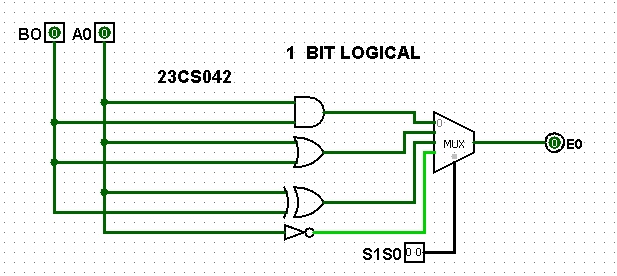
#### Implement 1-bit, 2-bit, 4-bit and 8-bit ALU

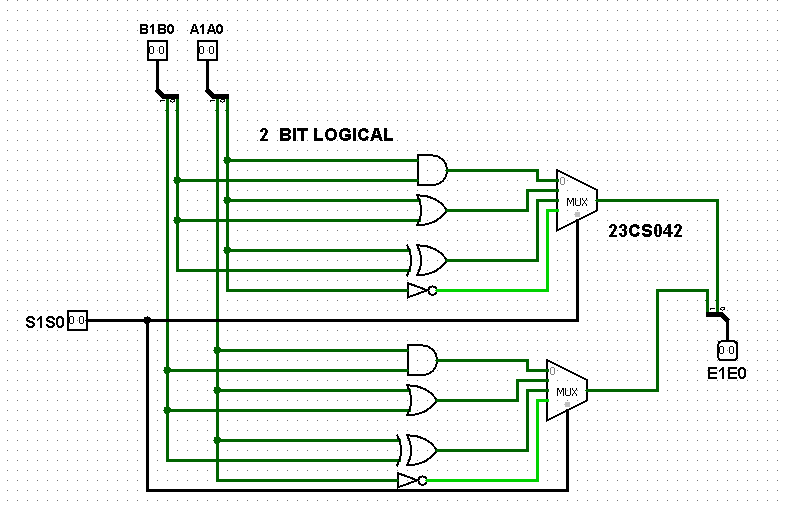
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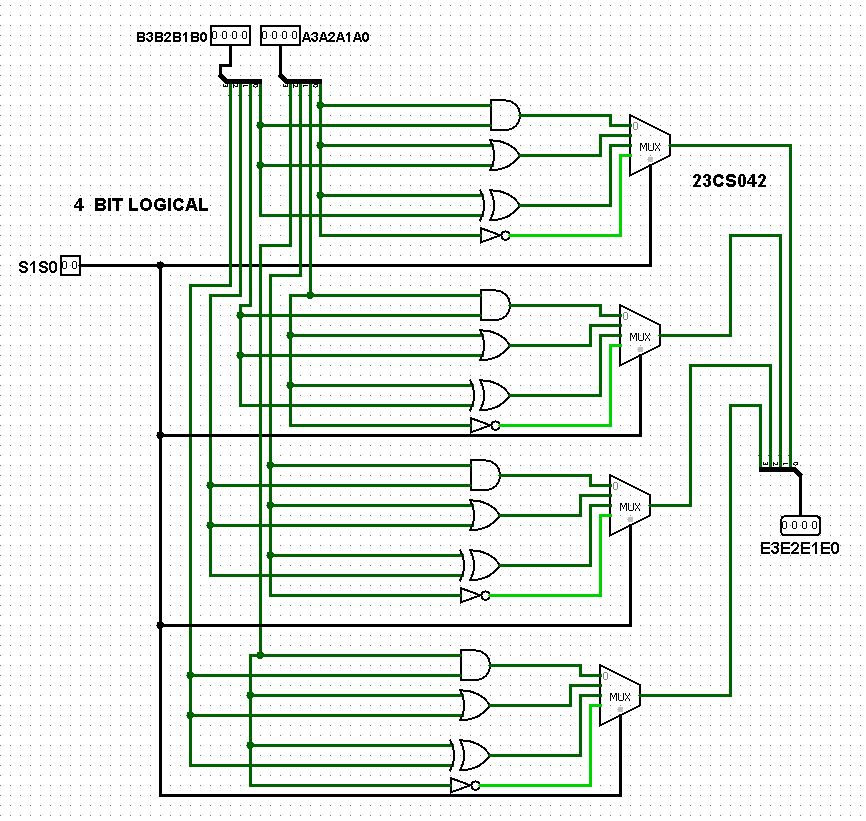


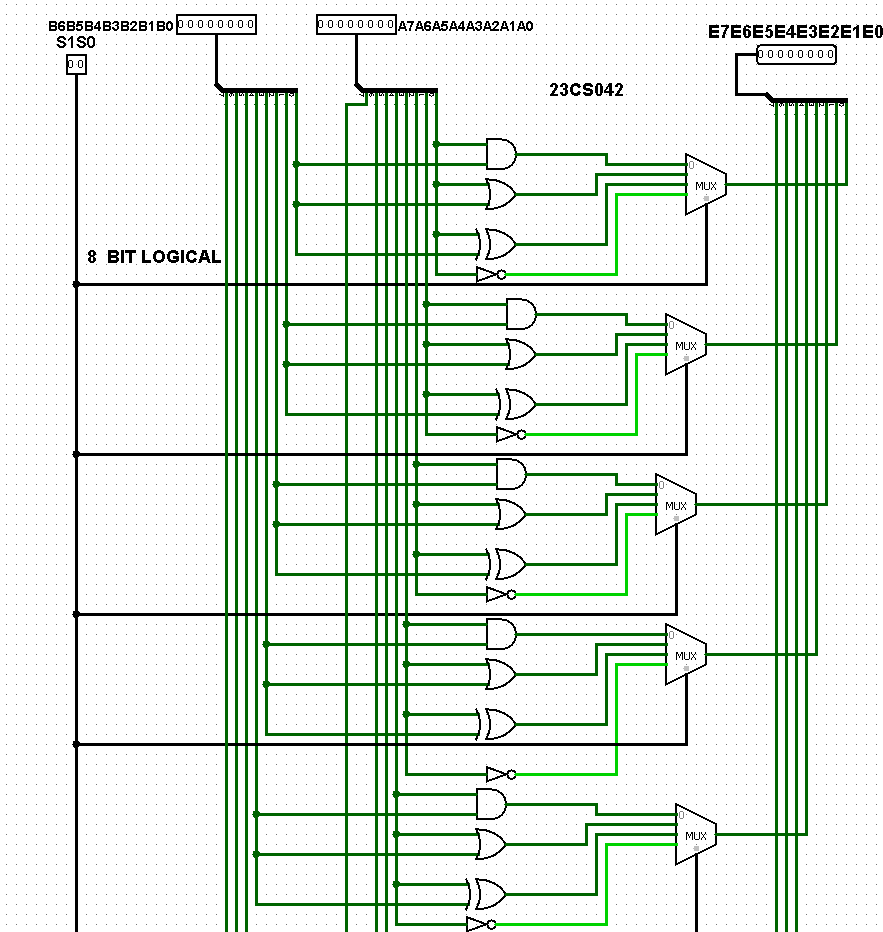


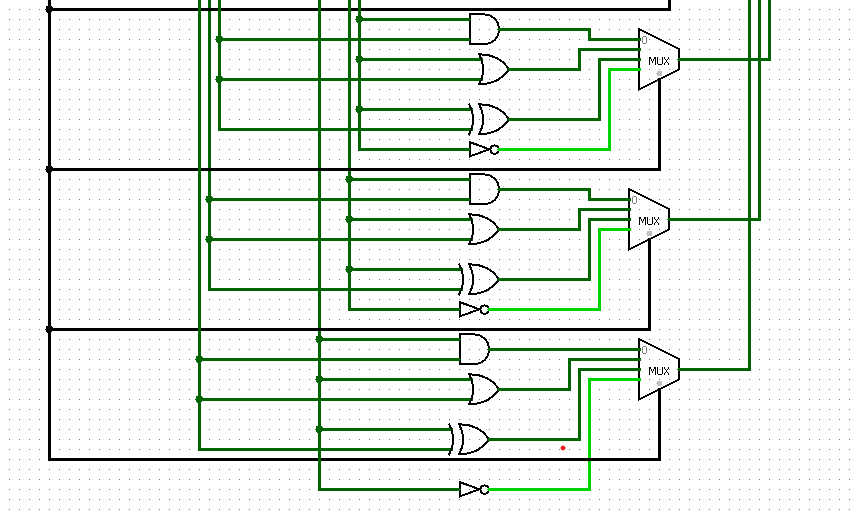


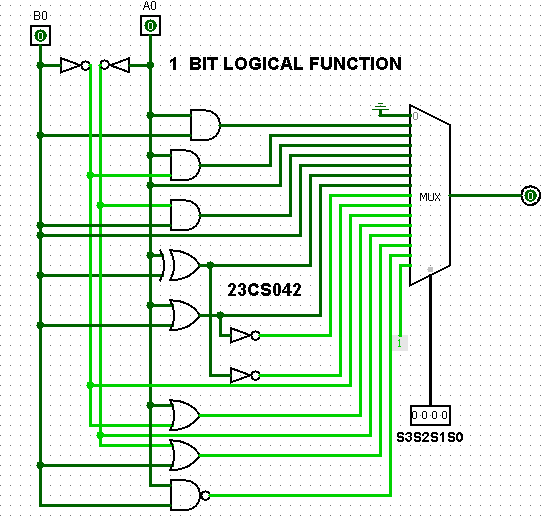


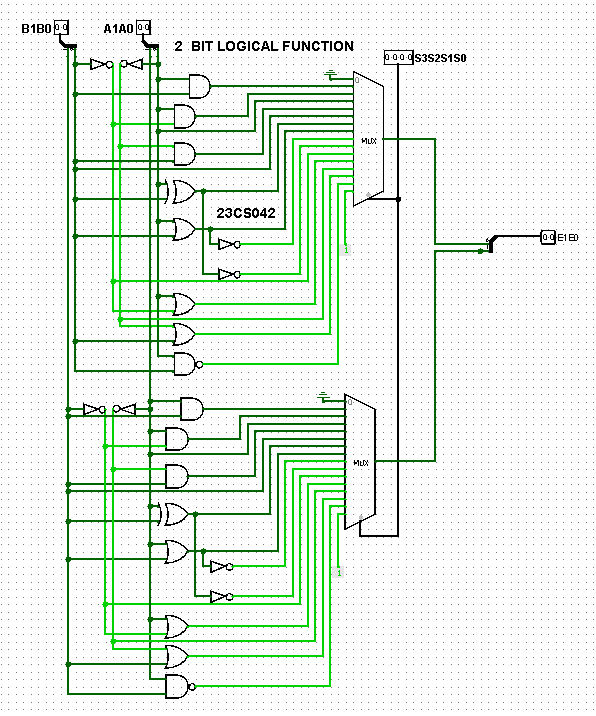


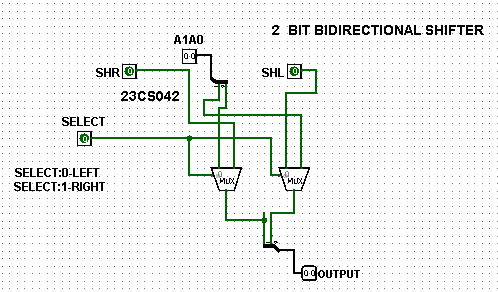
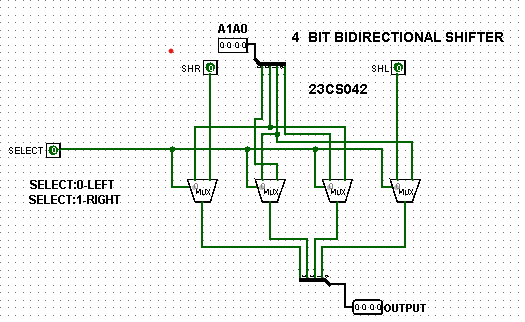
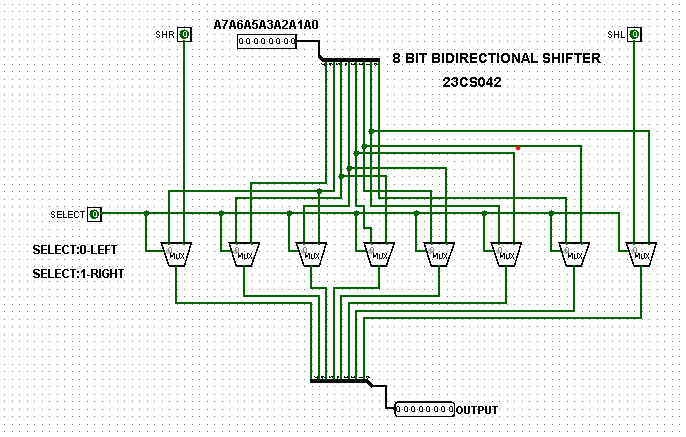
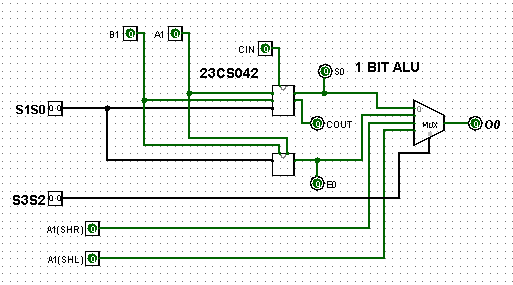


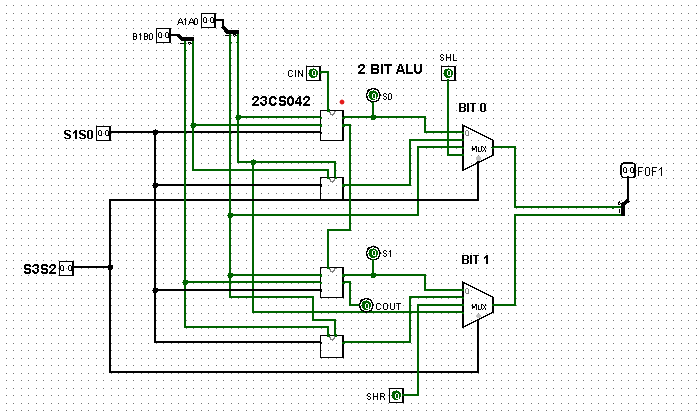
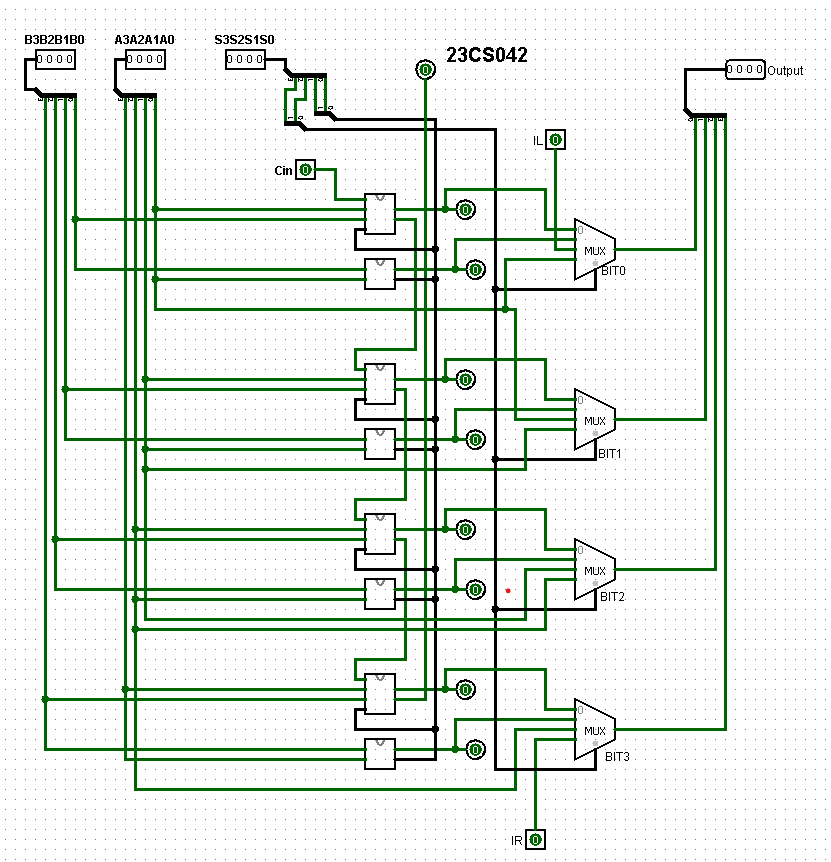


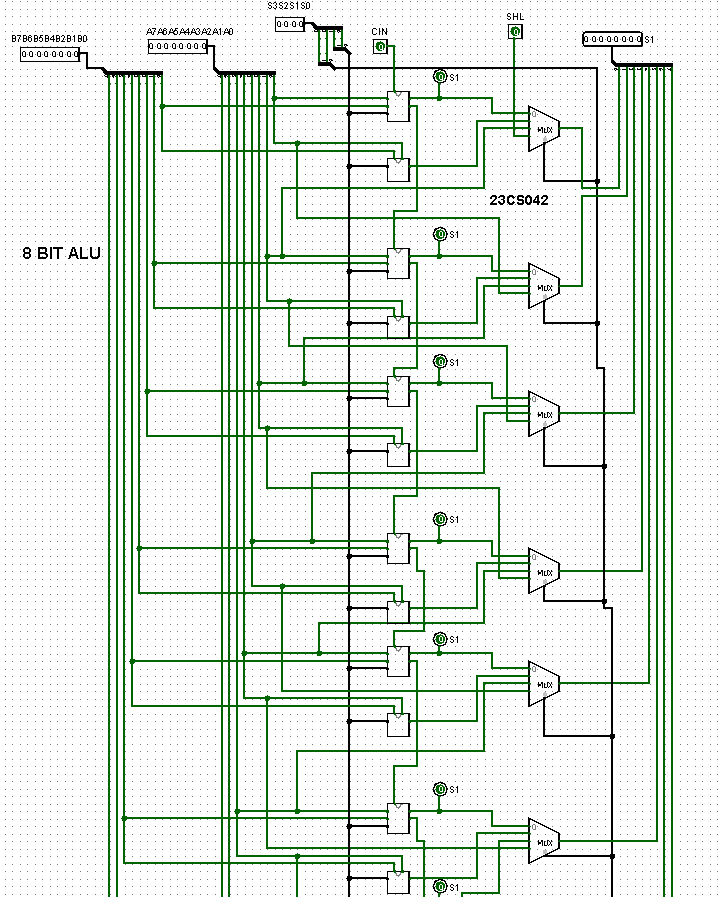
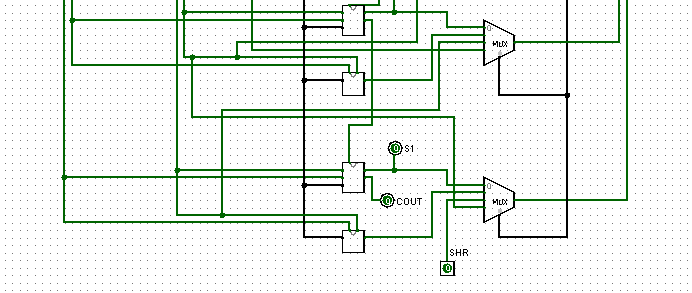




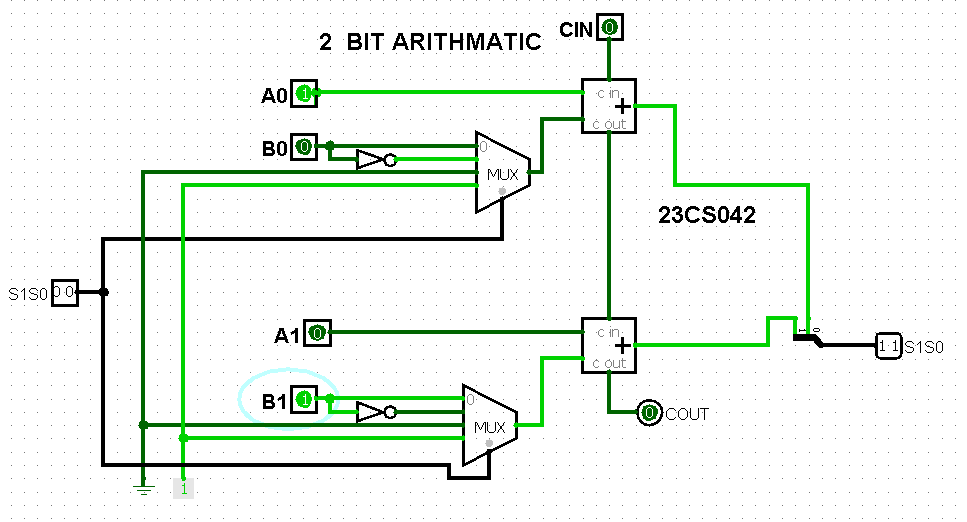
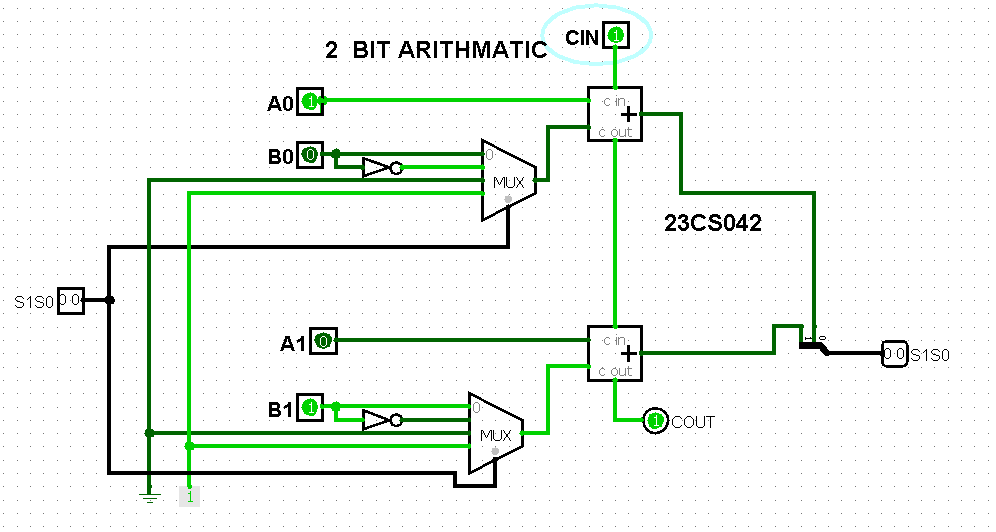
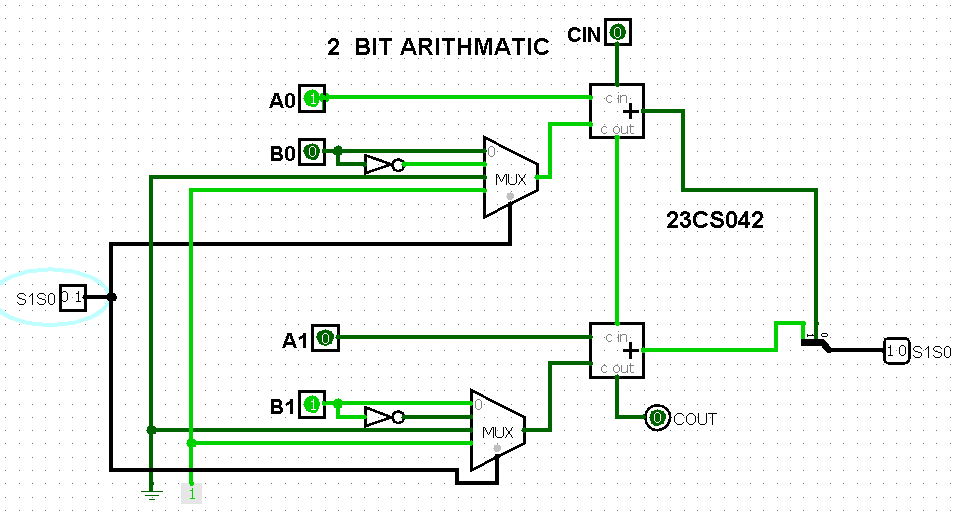
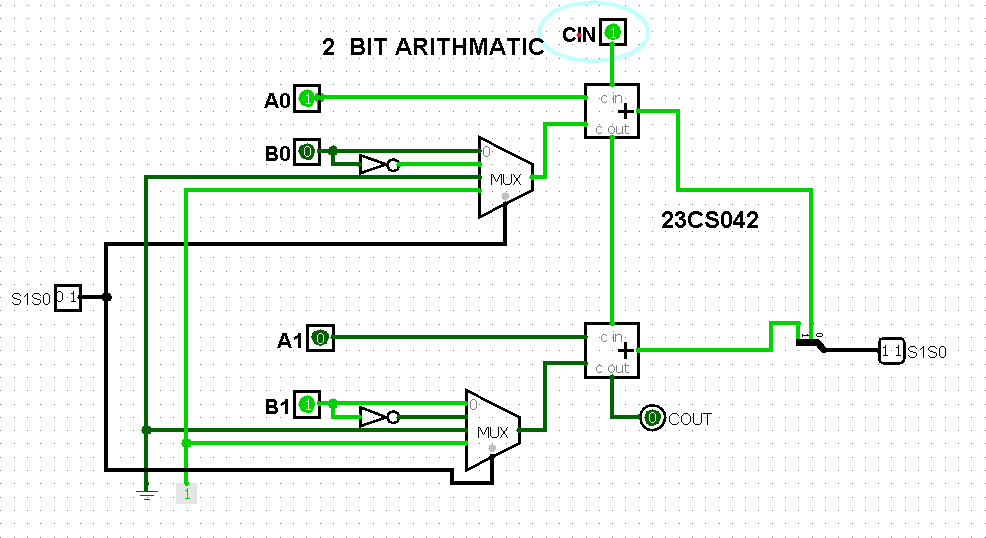
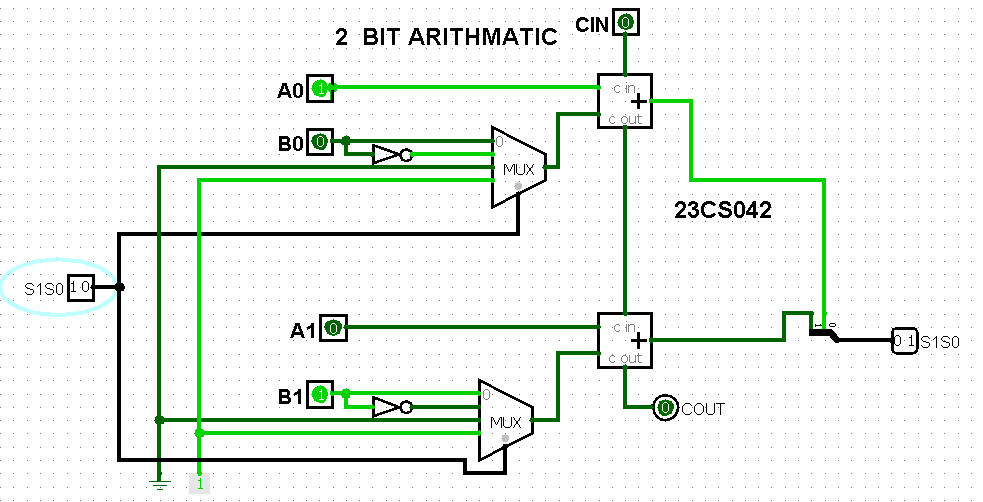
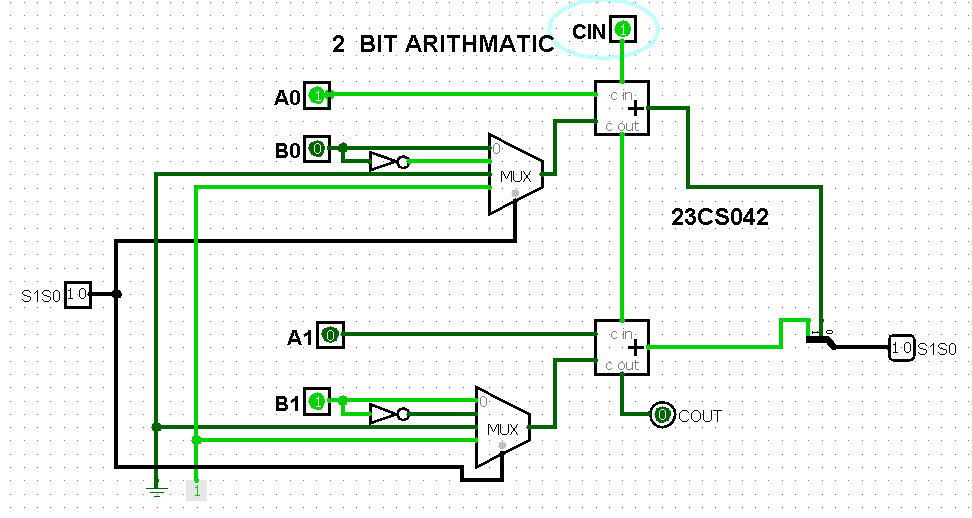
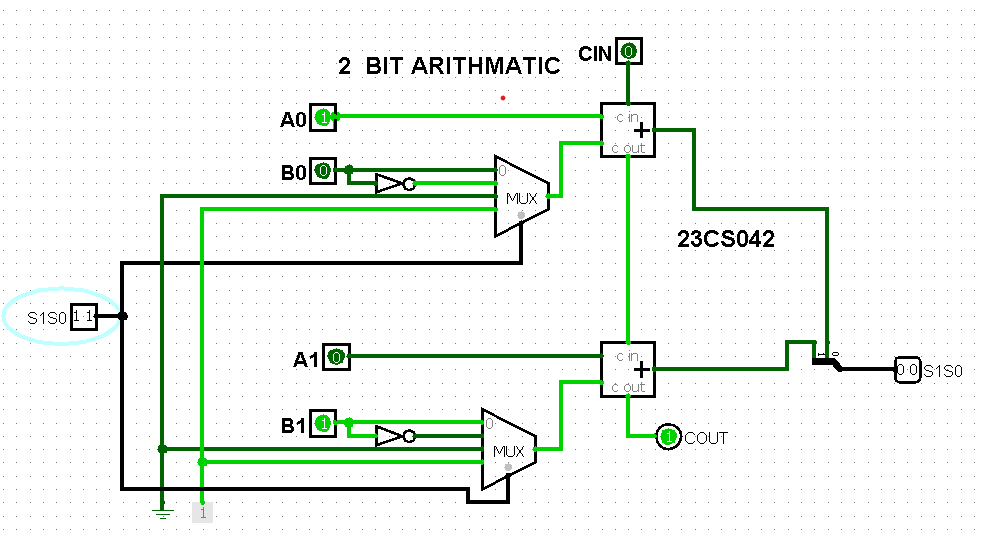
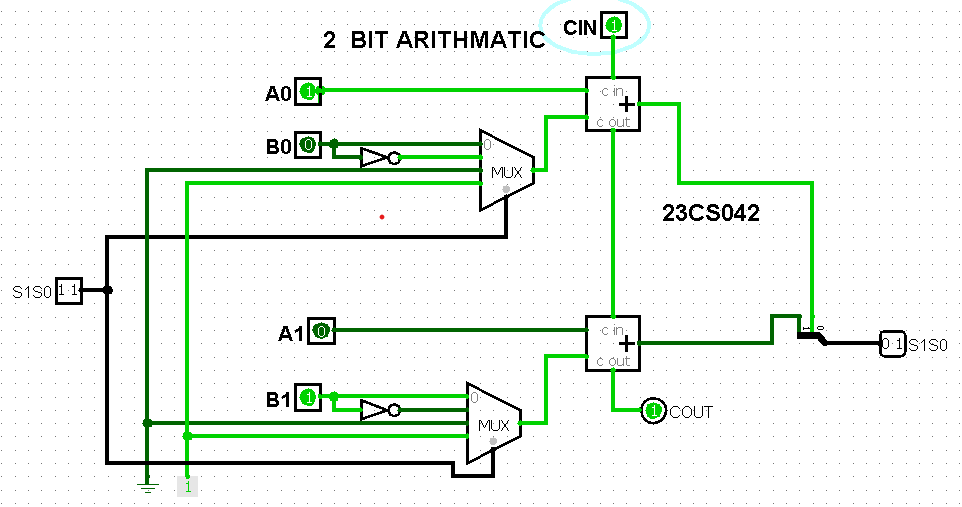


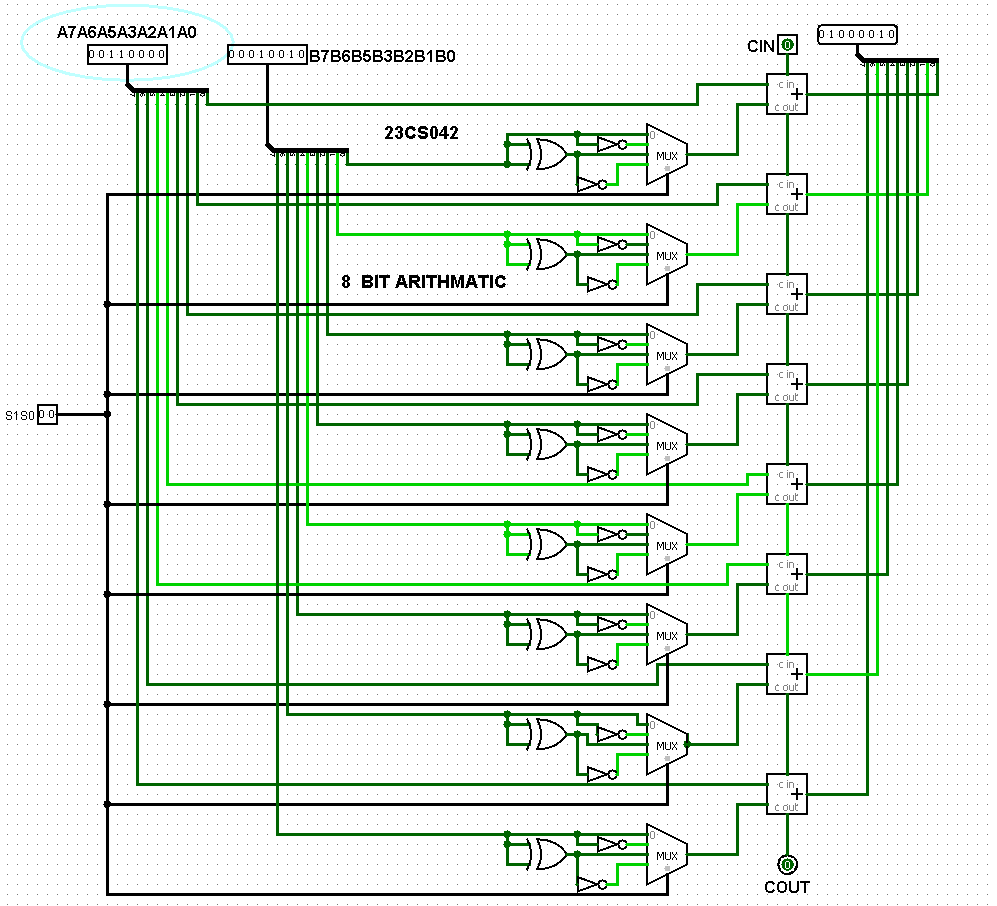
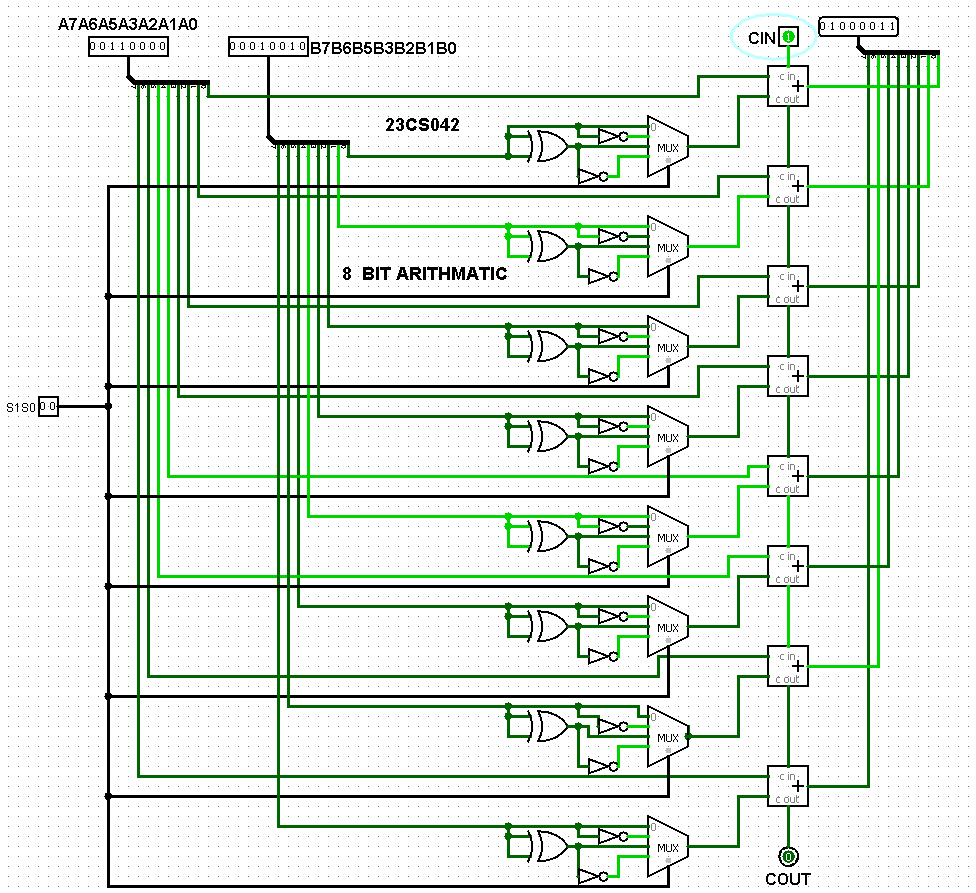
   

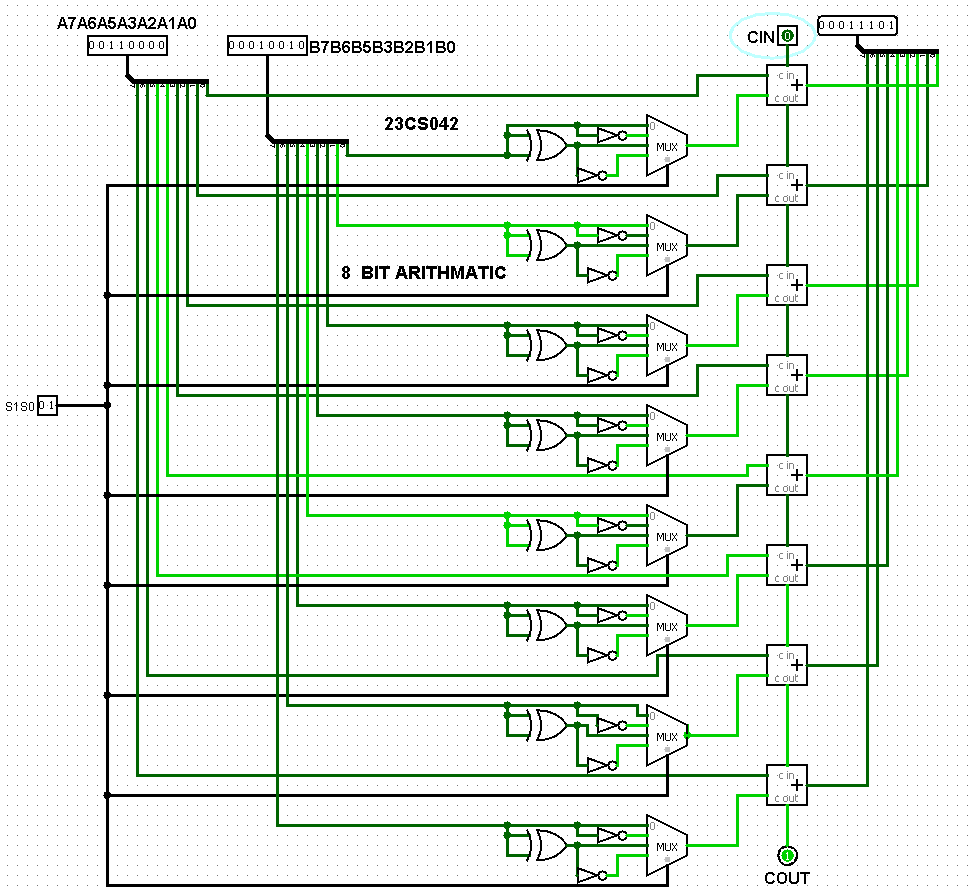
 

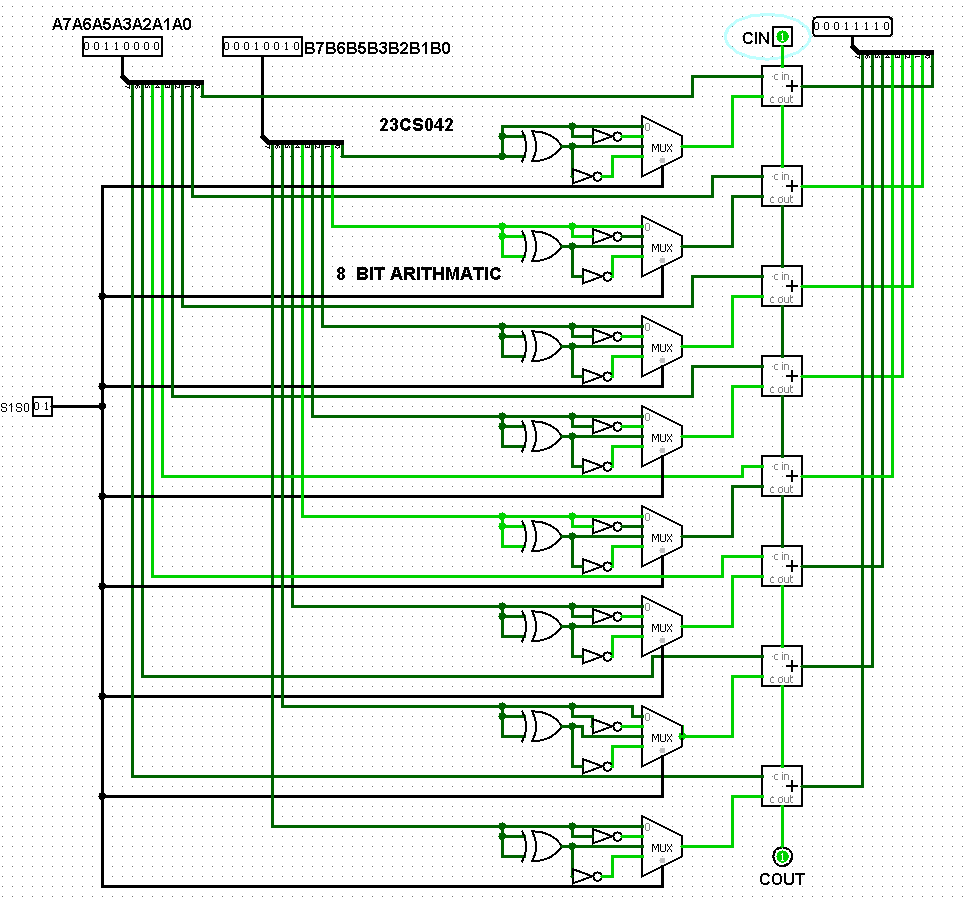
 

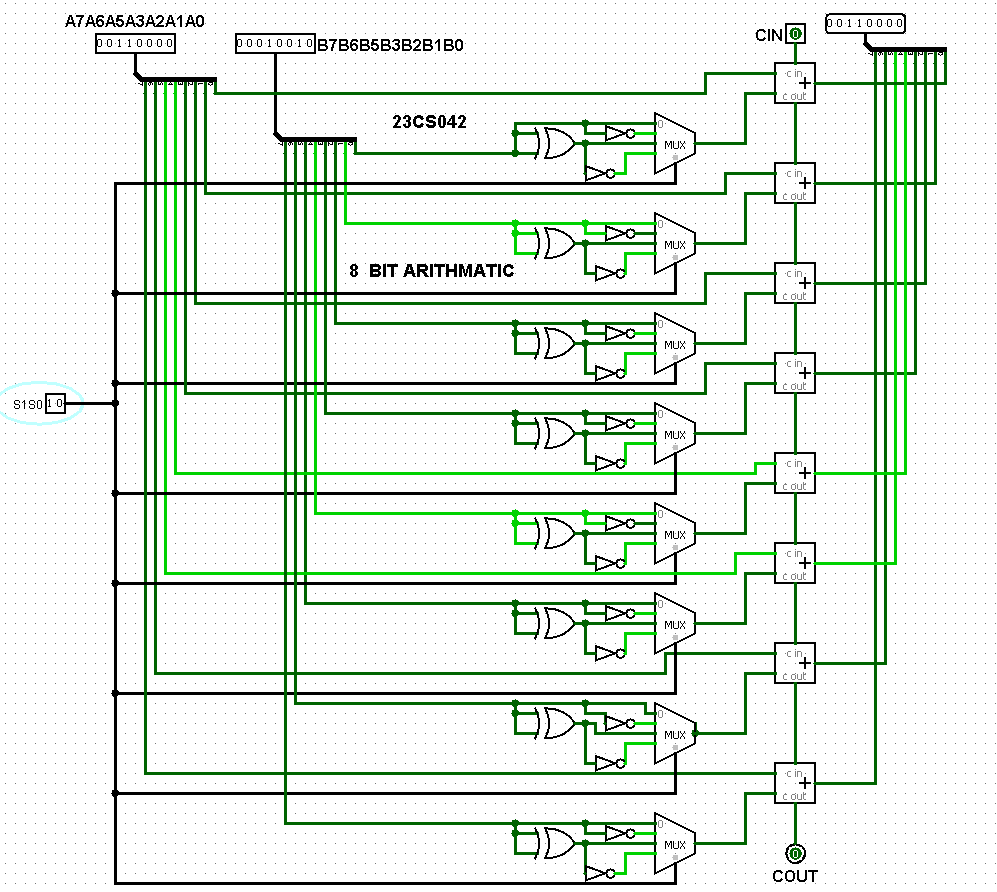
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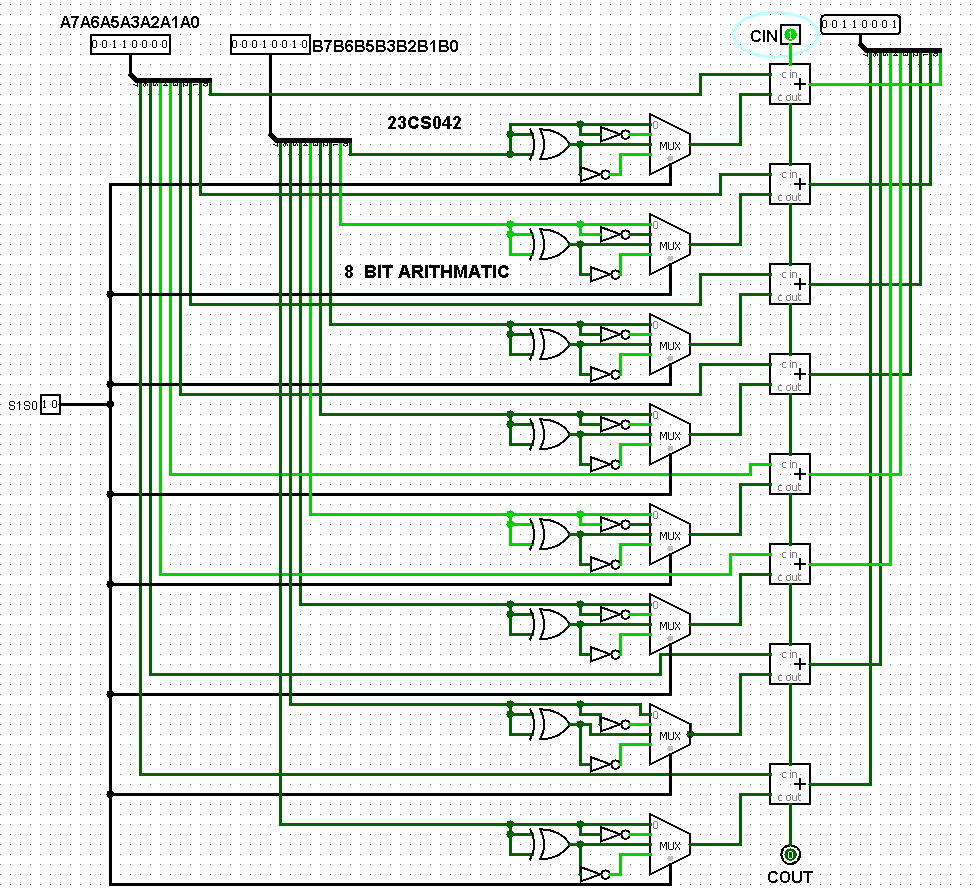
       

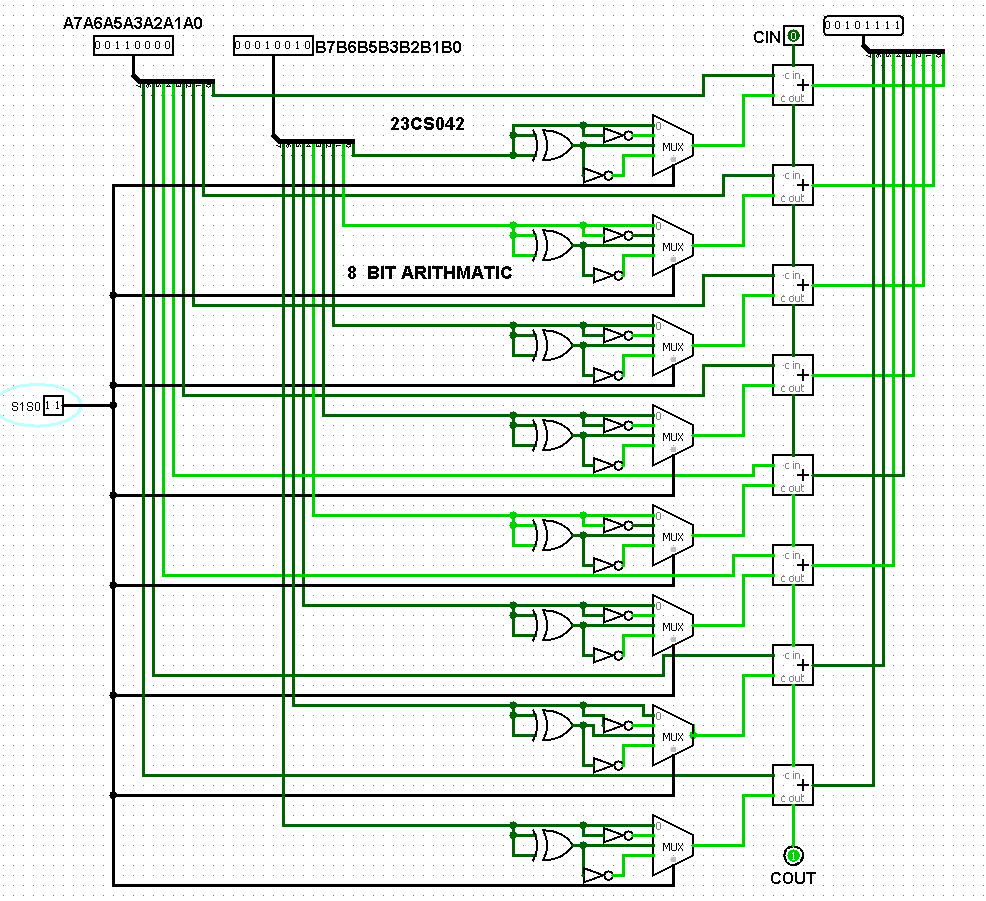
 

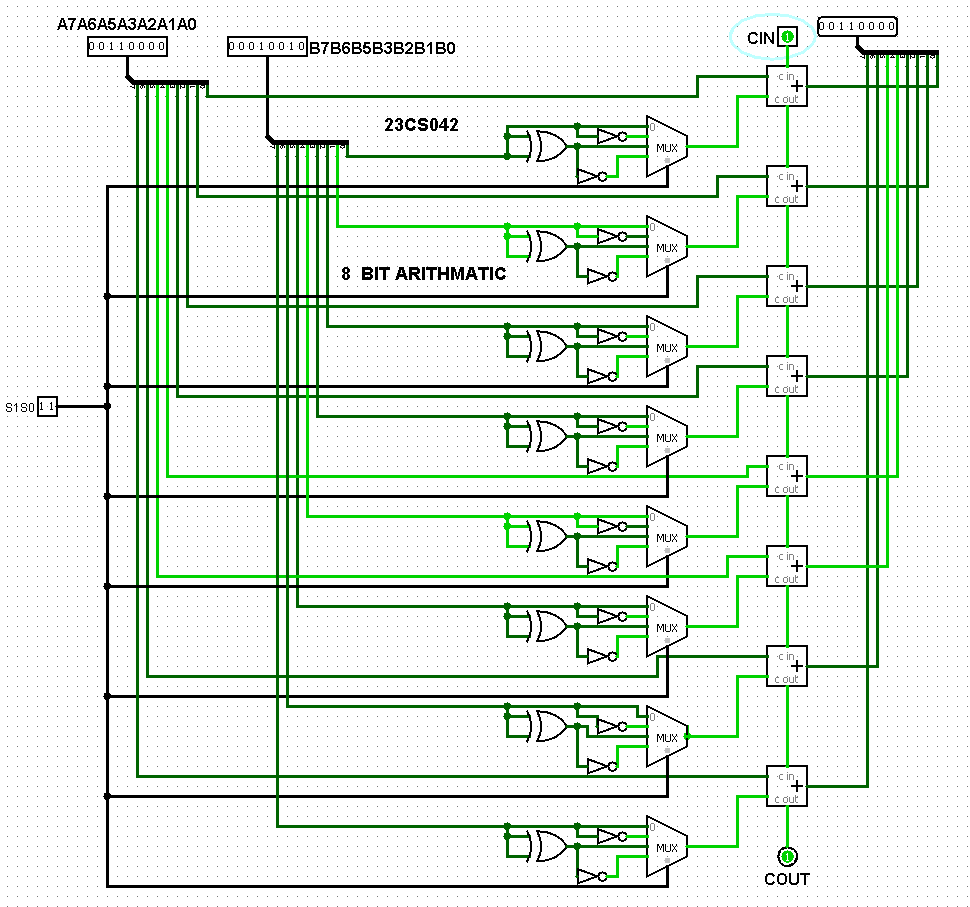


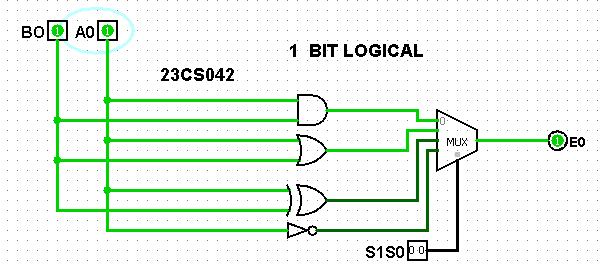
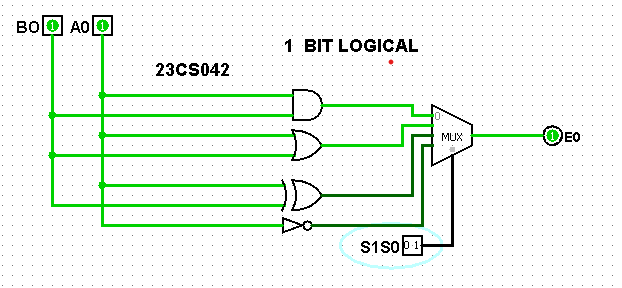
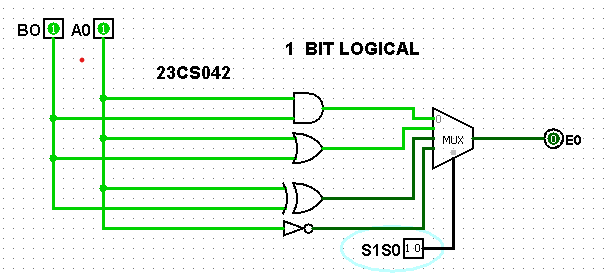
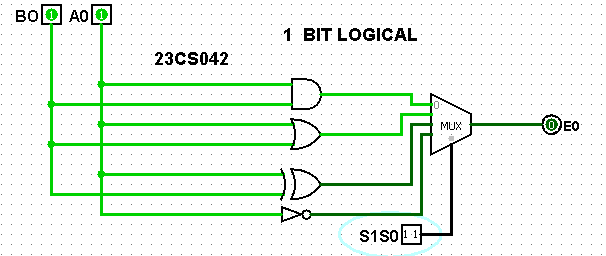


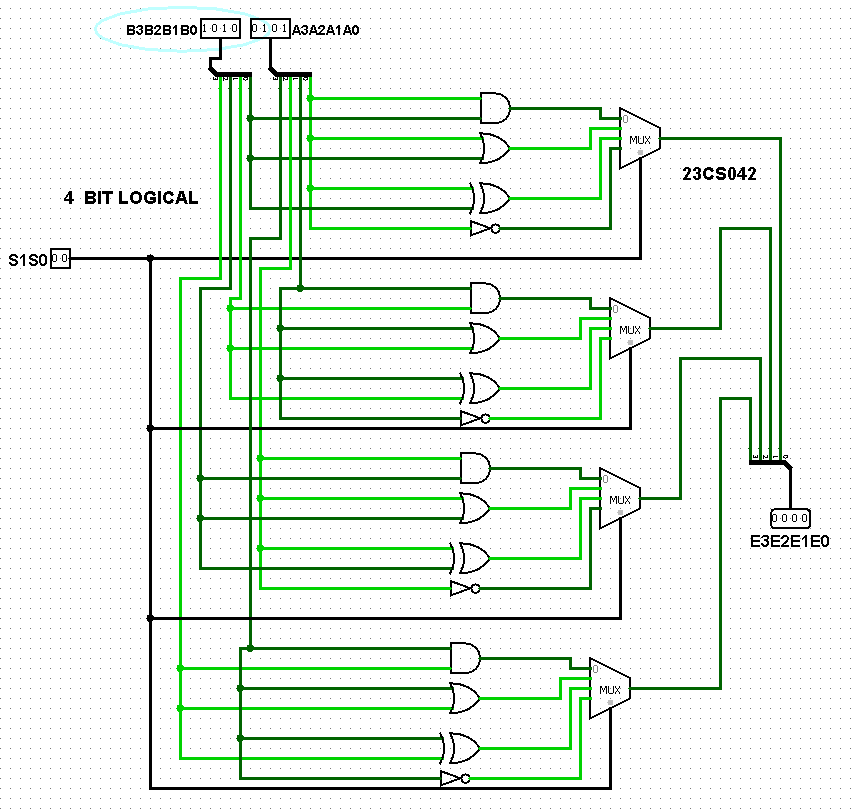


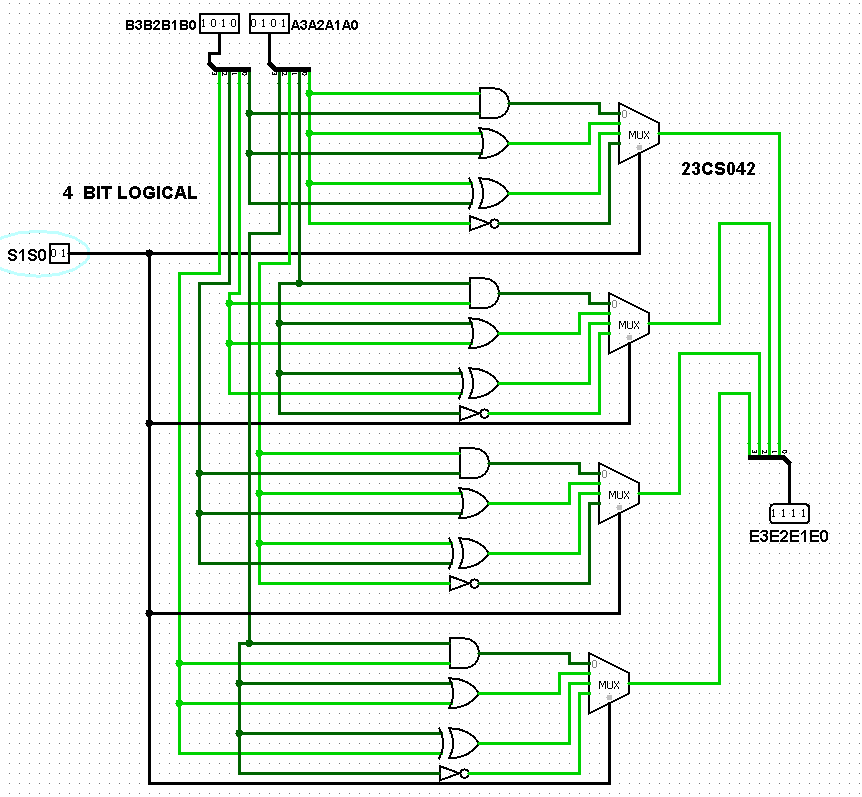


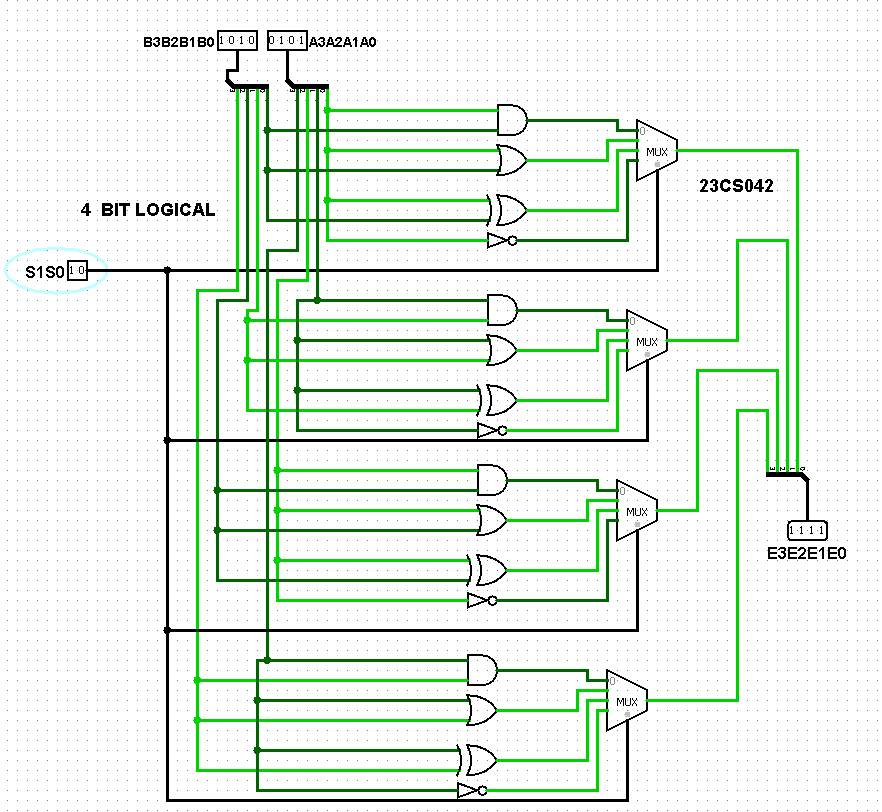


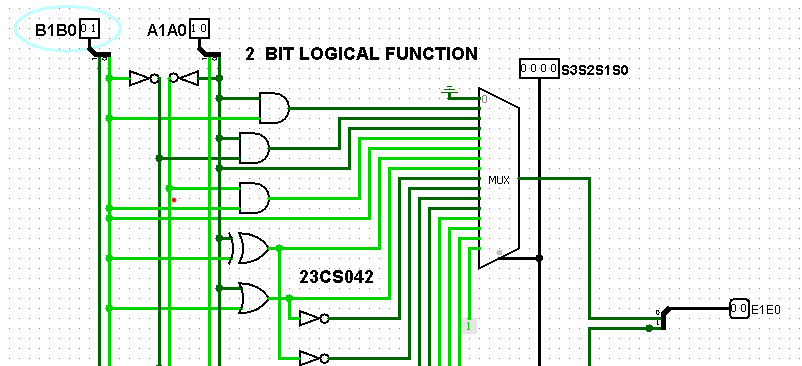
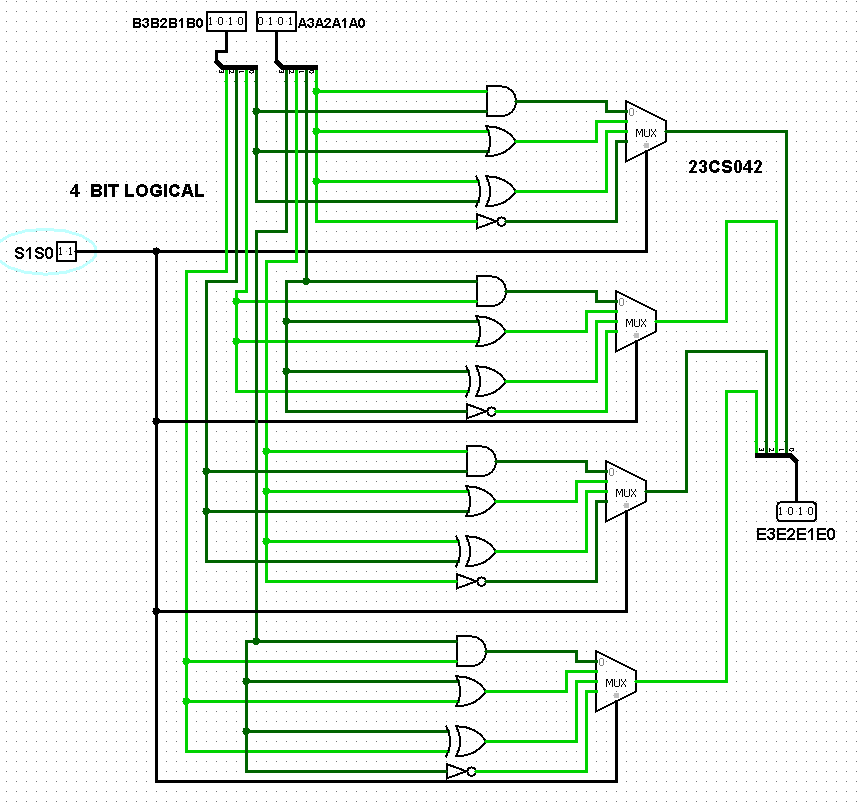


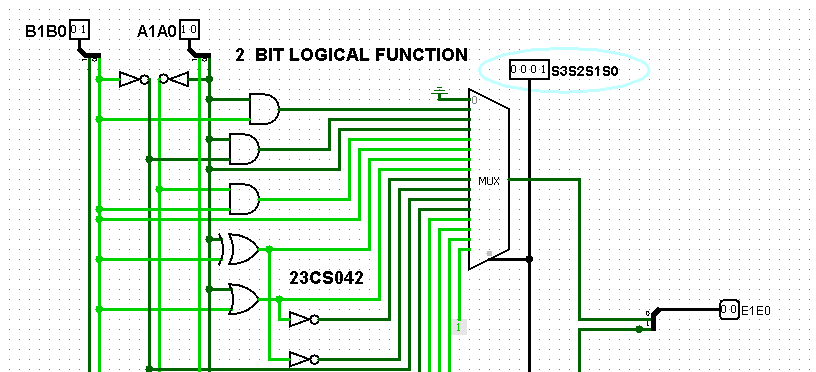
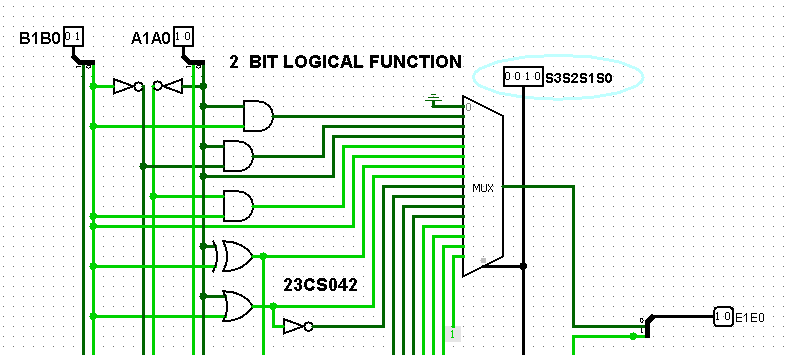
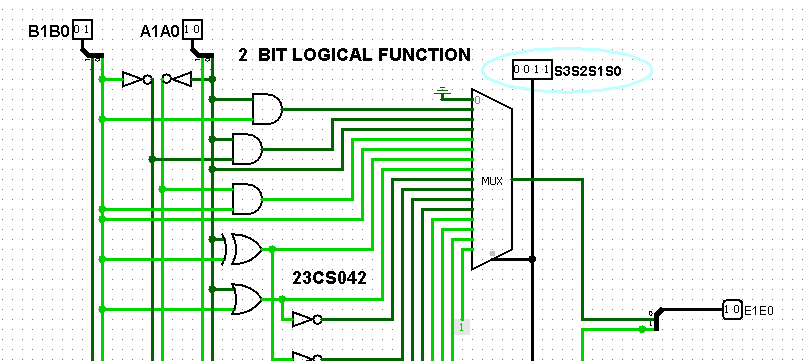
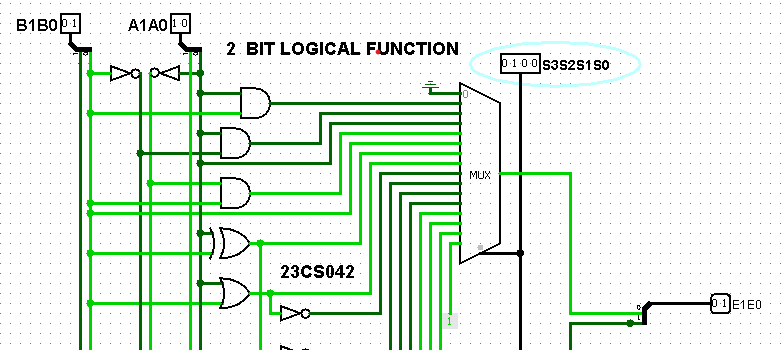
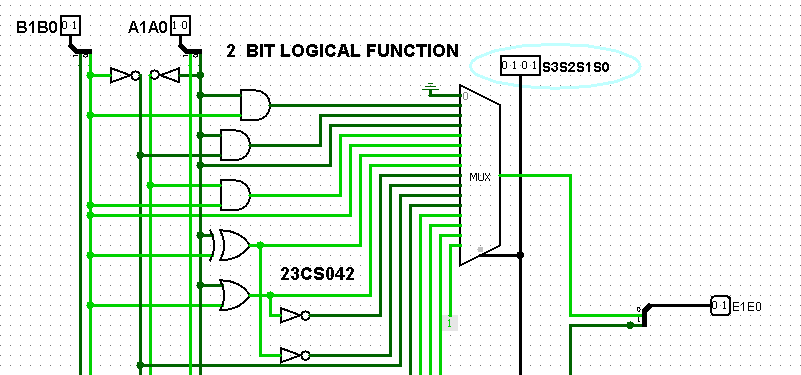
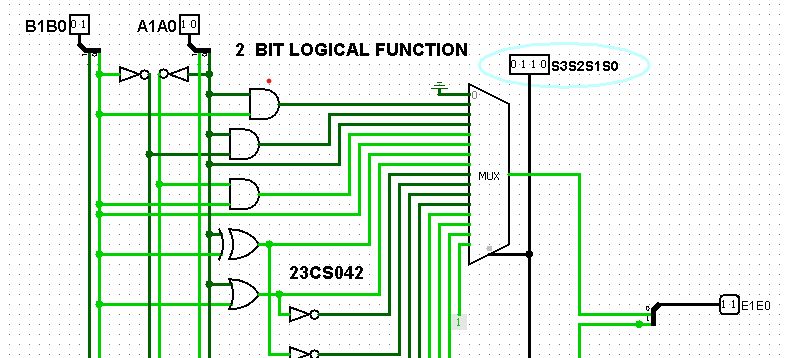
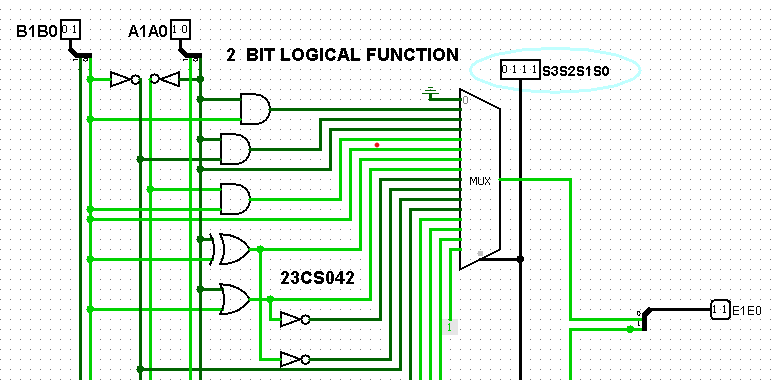
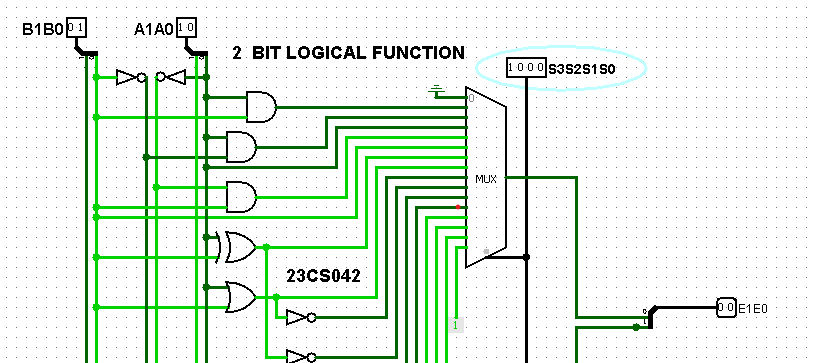
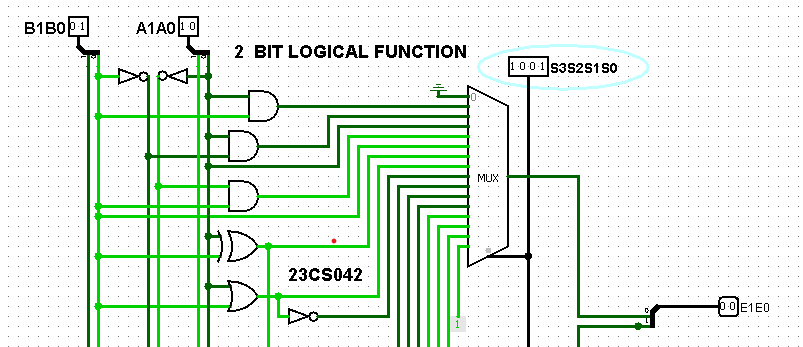
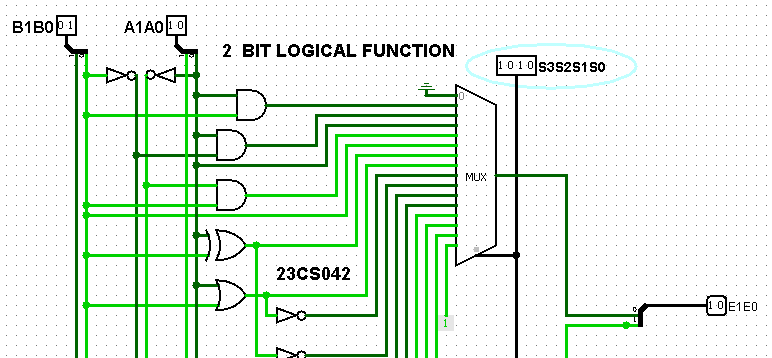
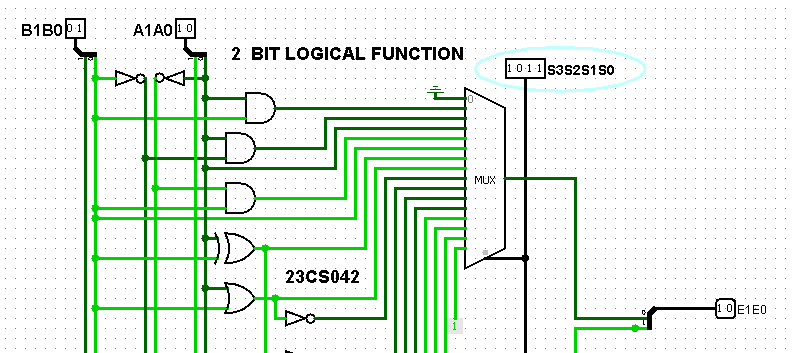
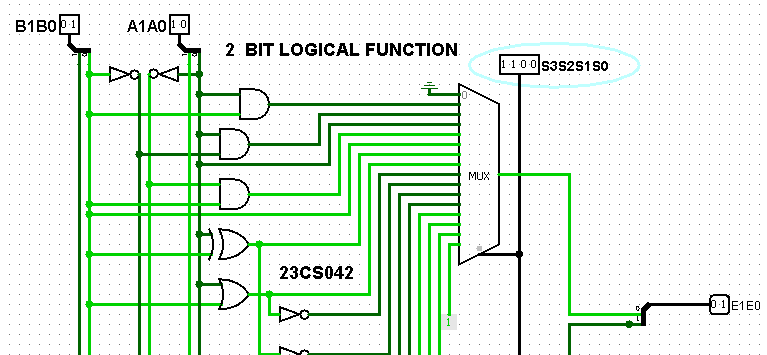
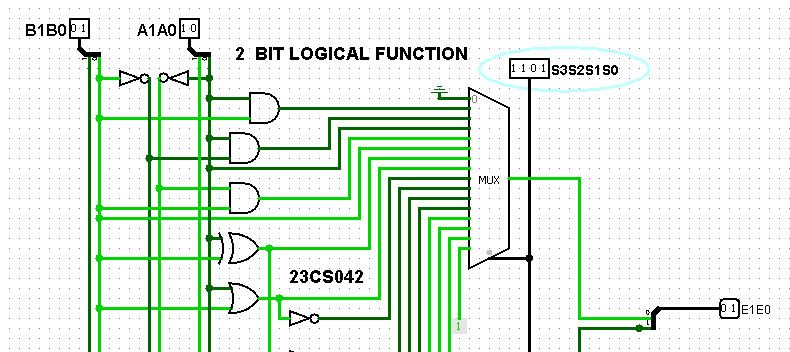
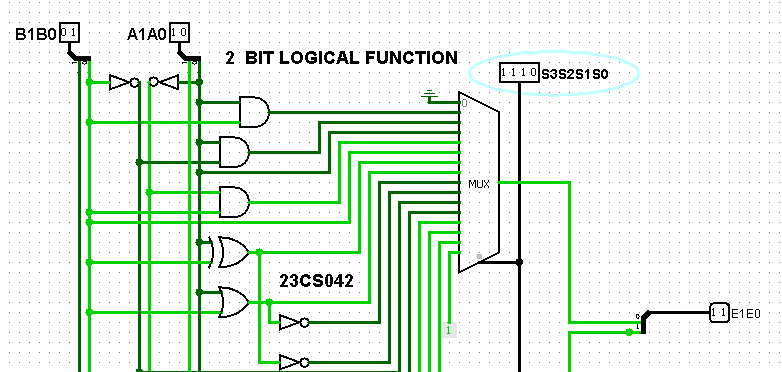
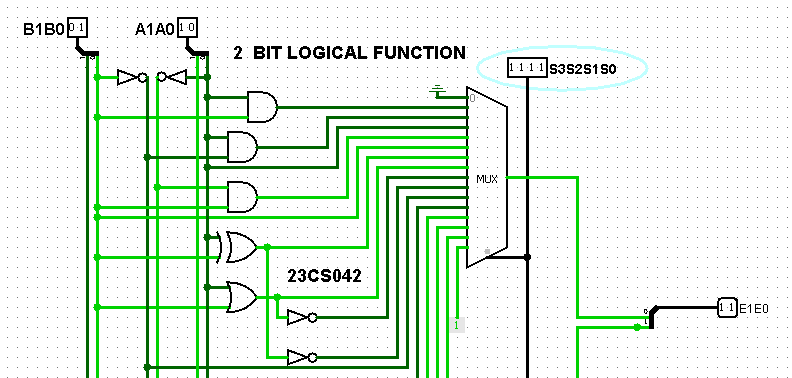
   

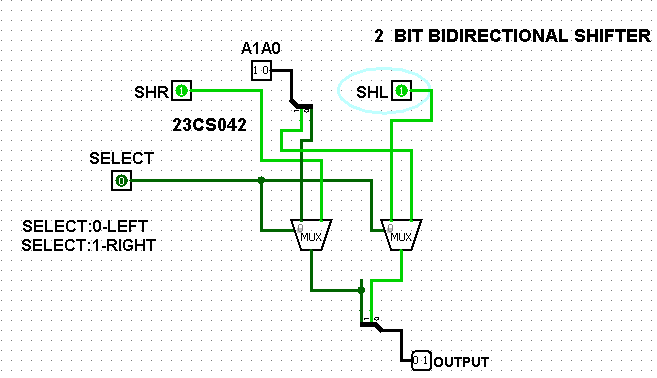
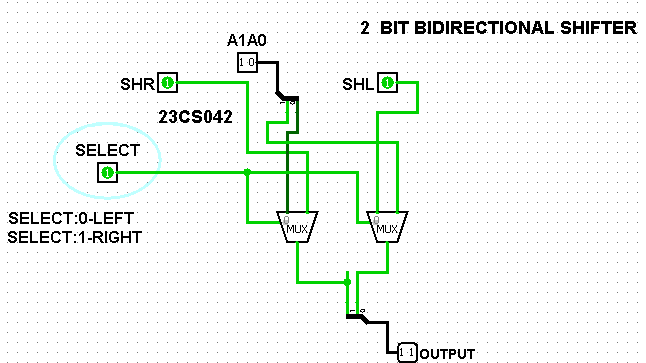
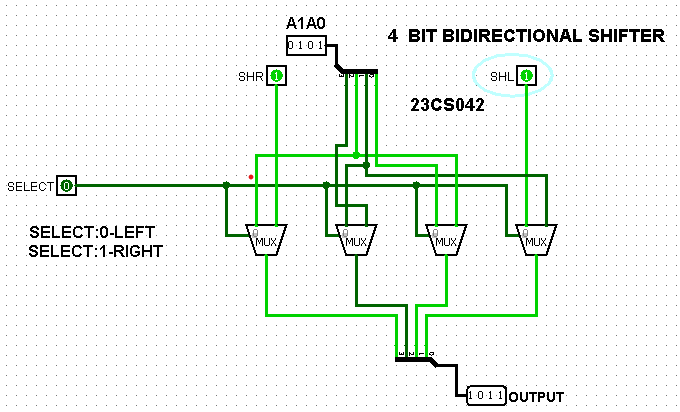
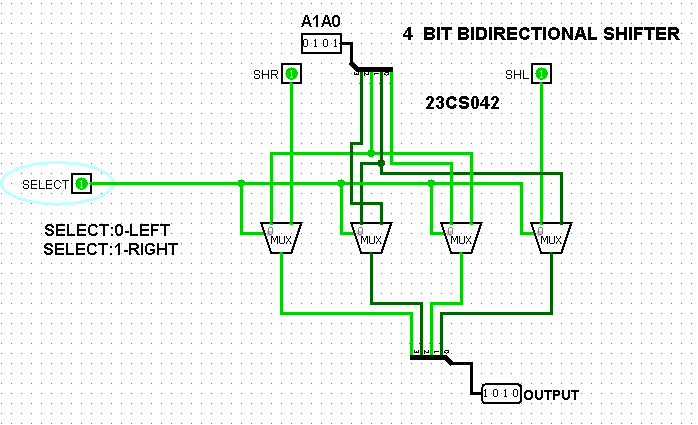
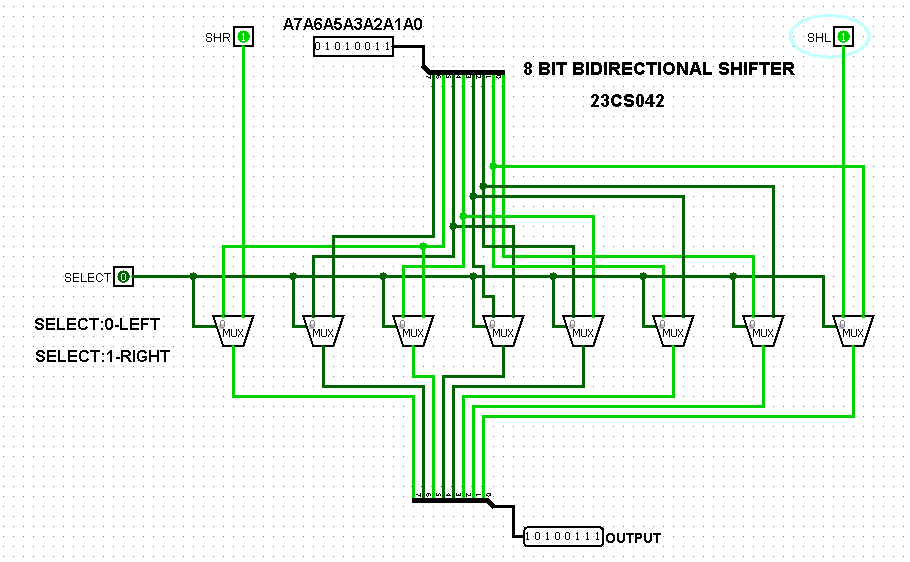
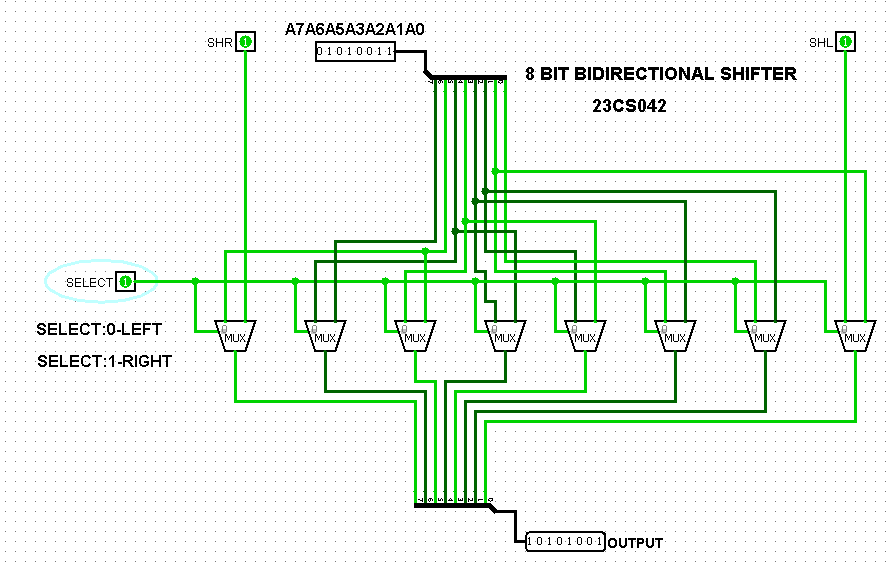


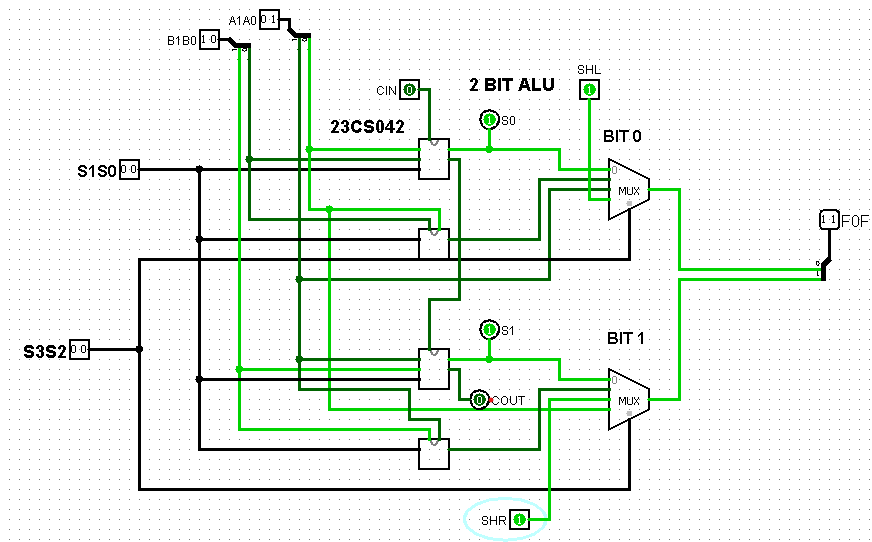
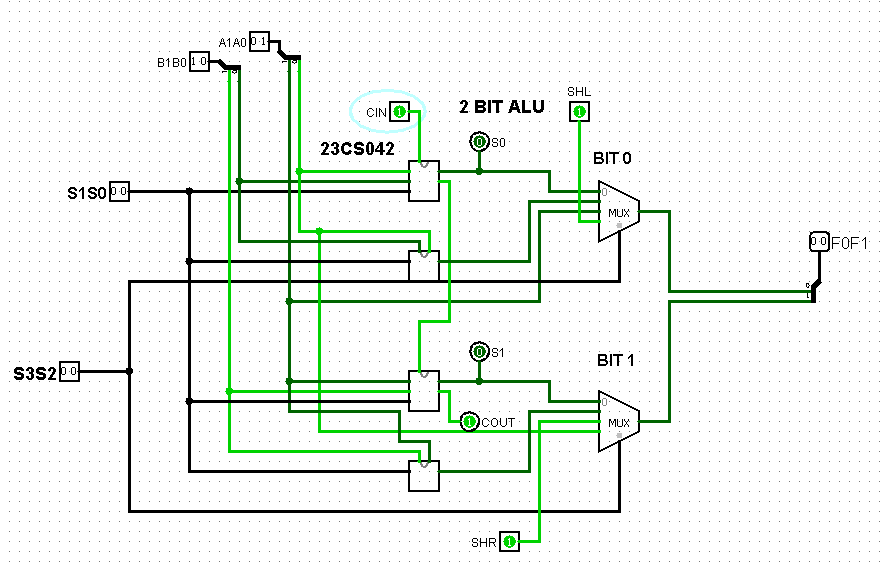
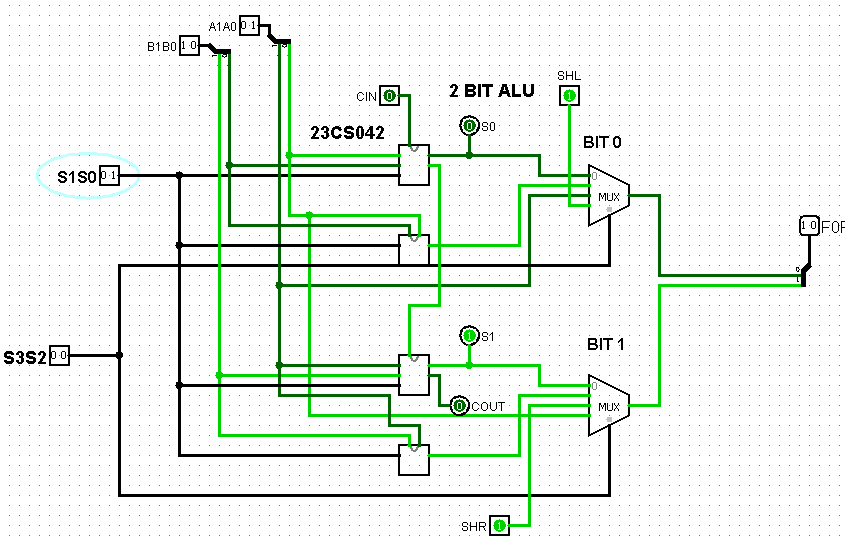
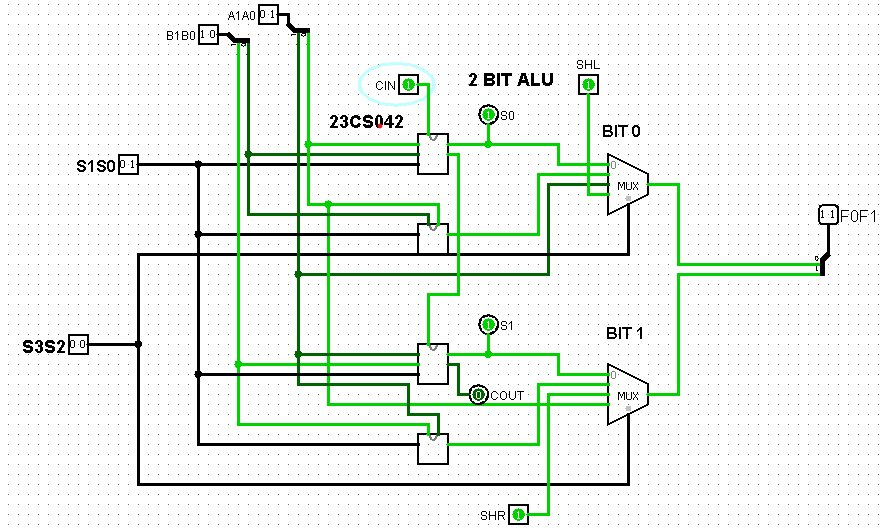
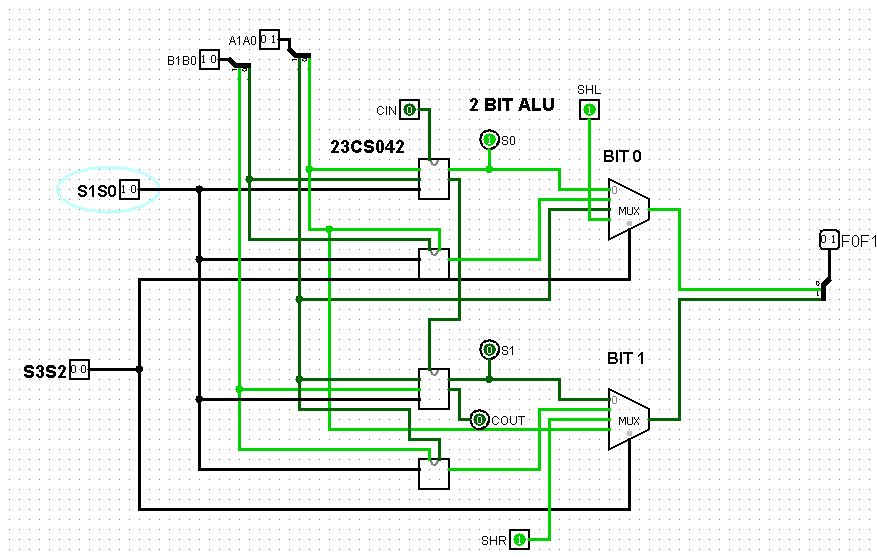
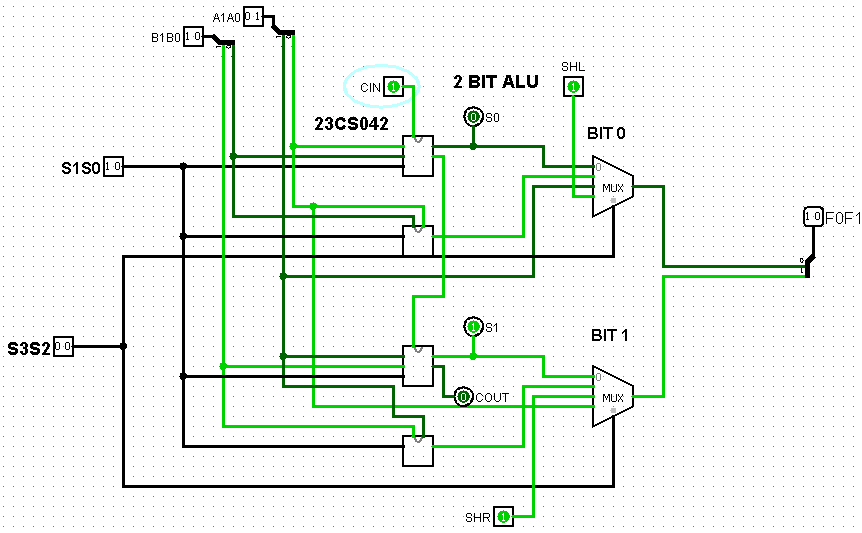
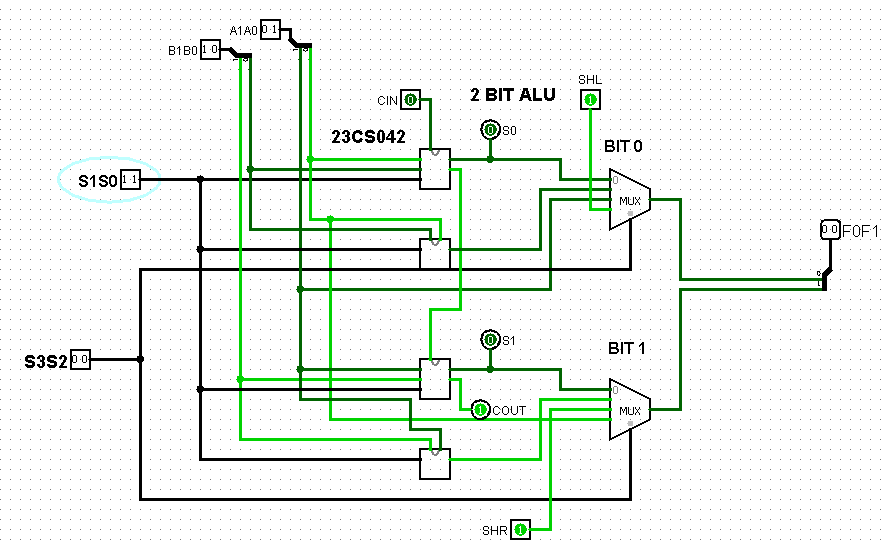
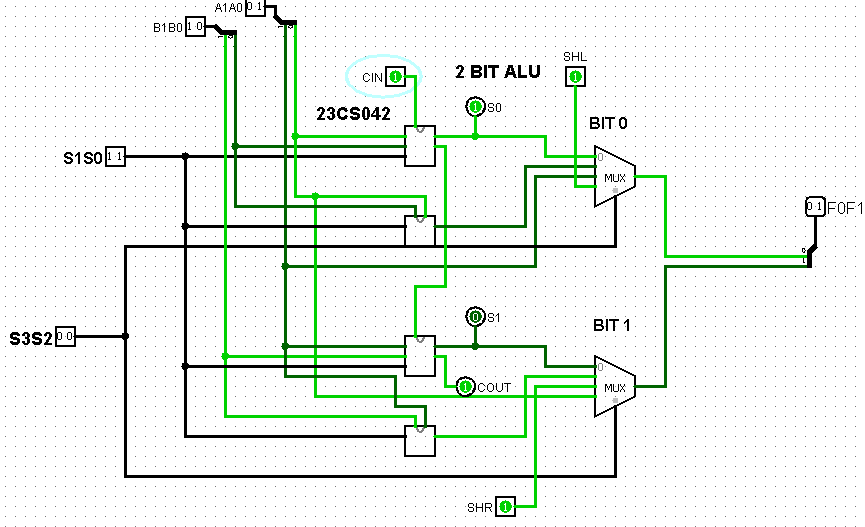
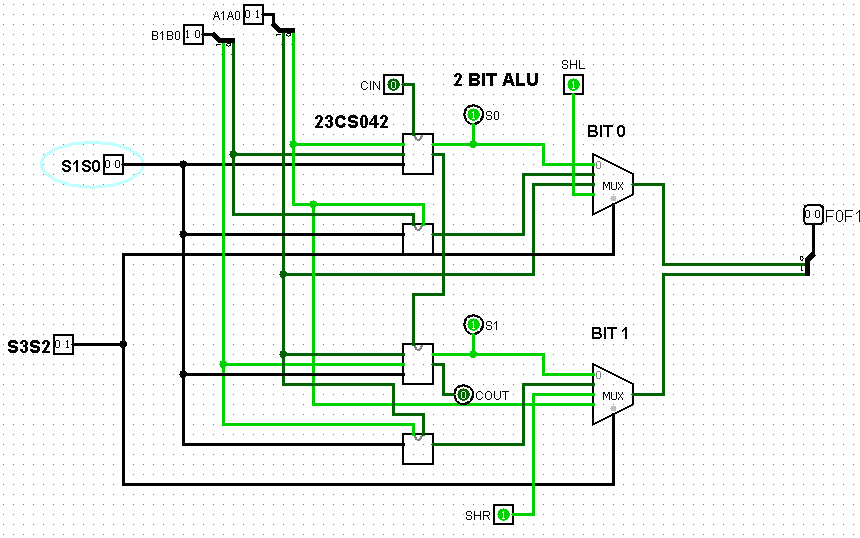
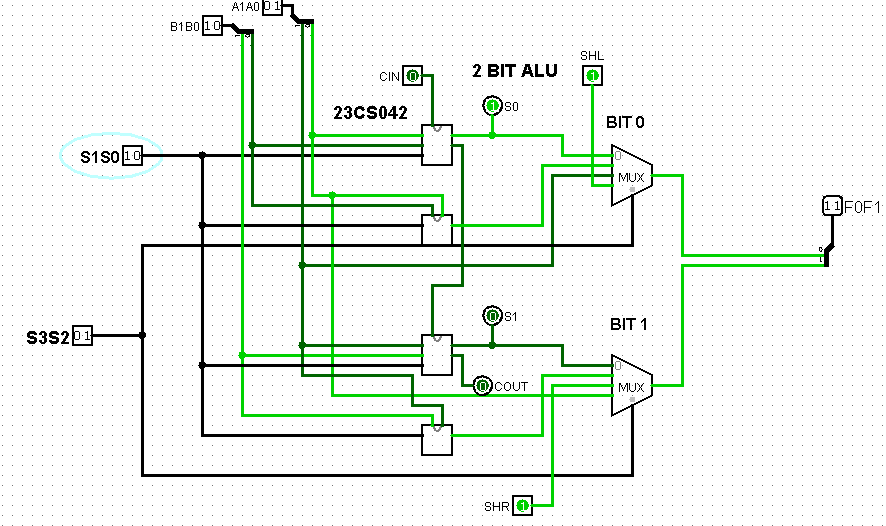
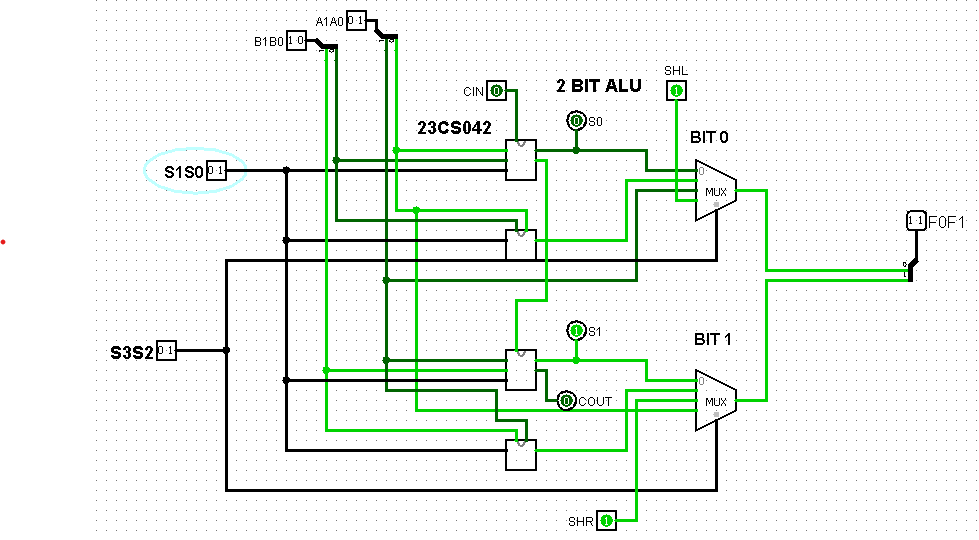
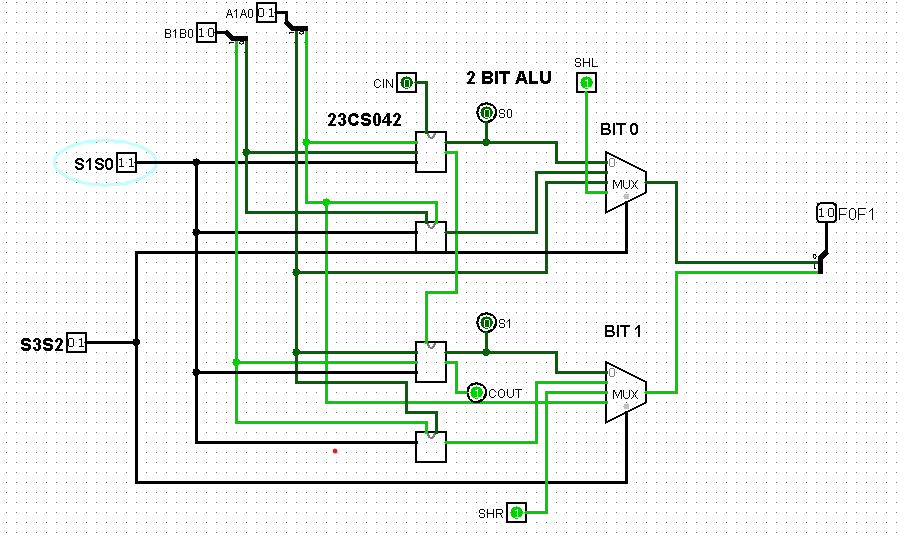
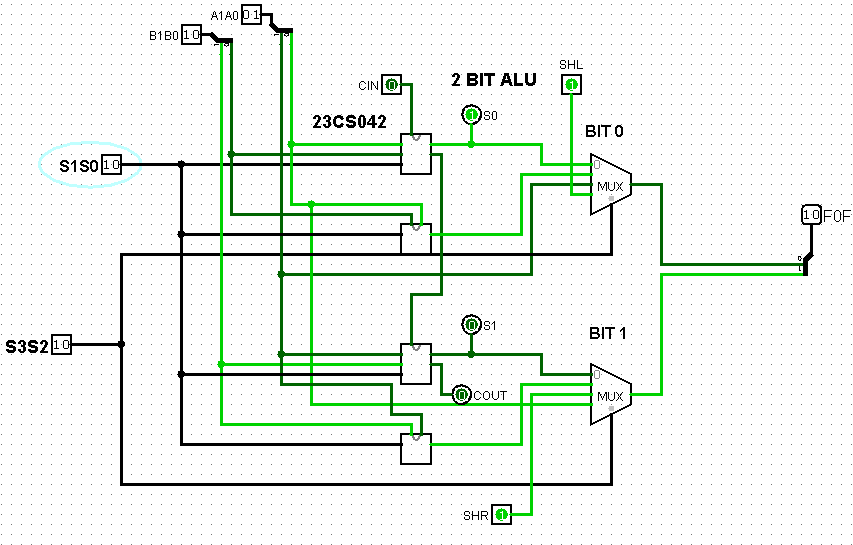
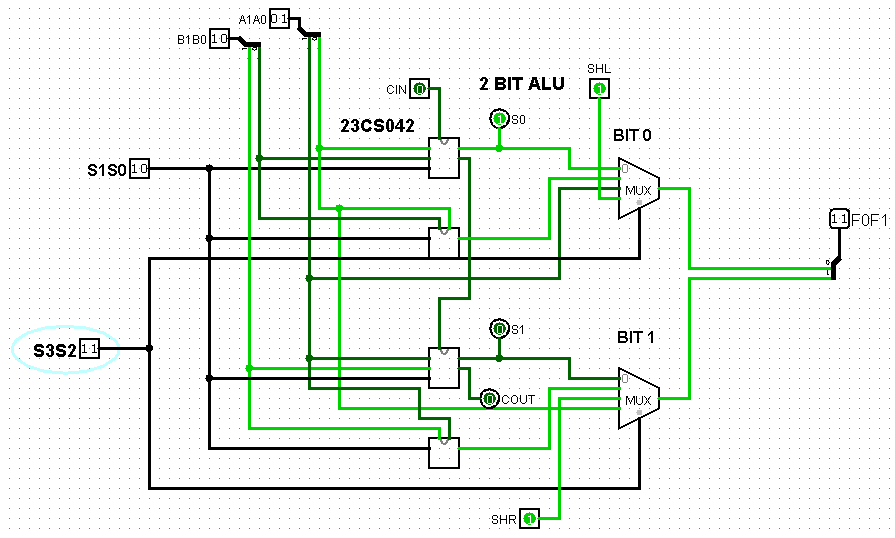
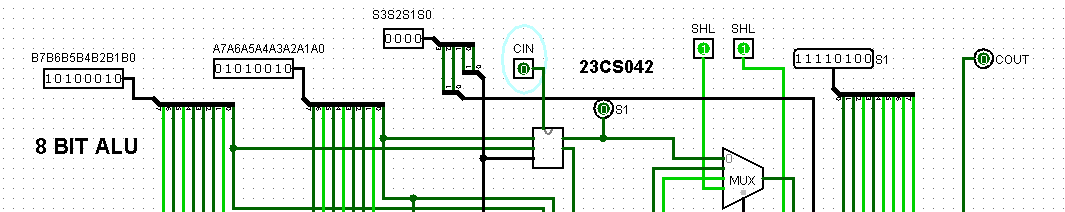


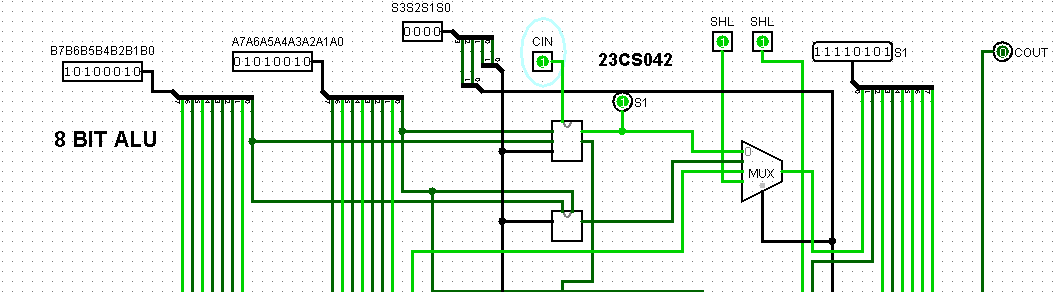


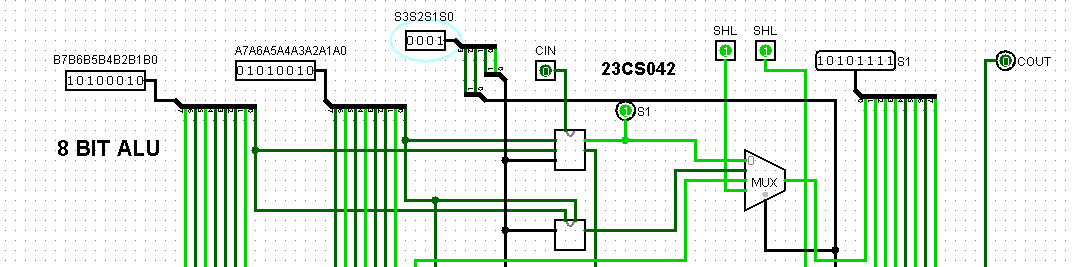


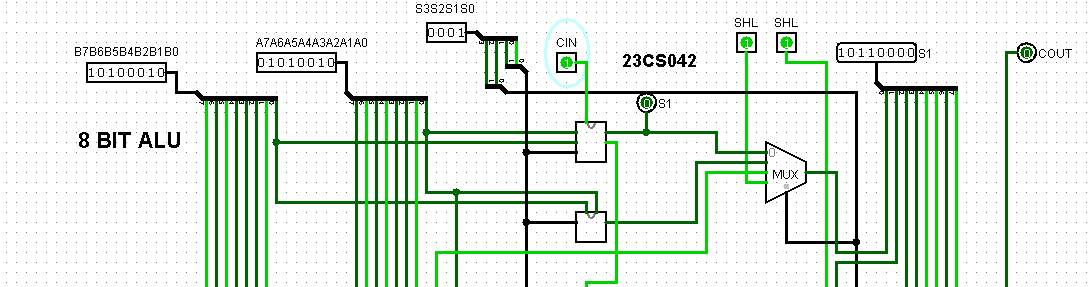
              

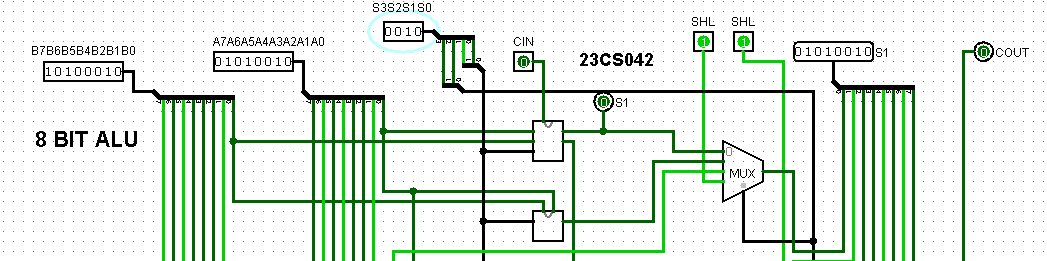
     

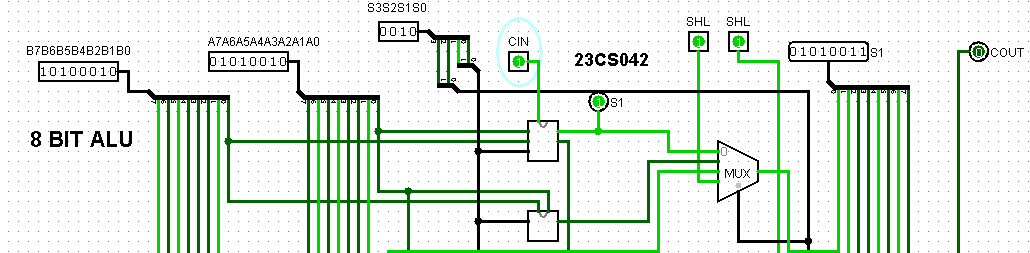
             

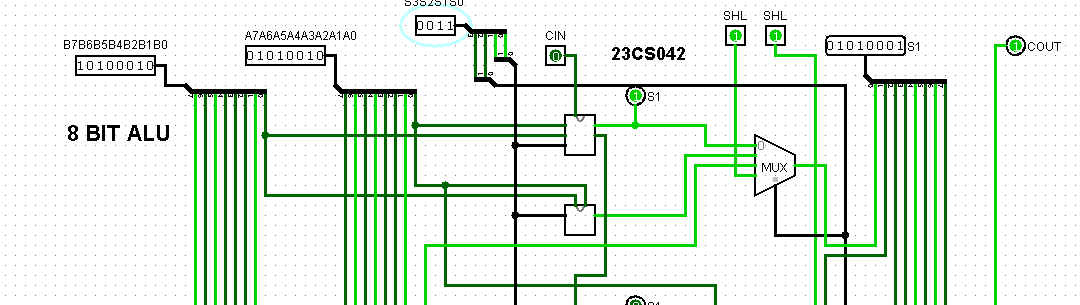


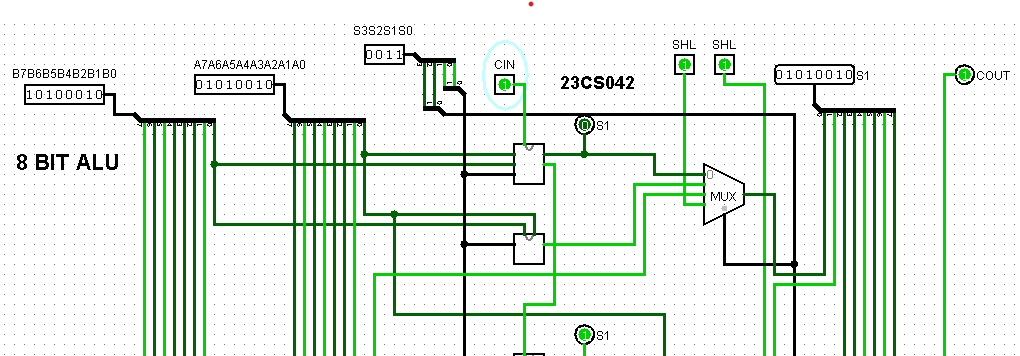


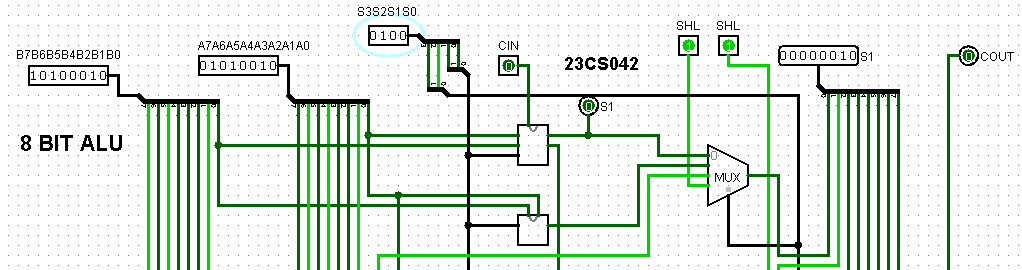


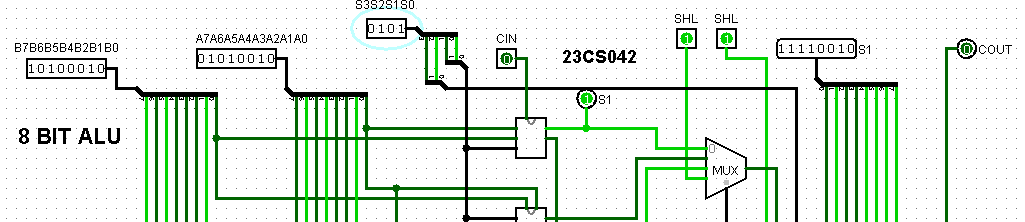


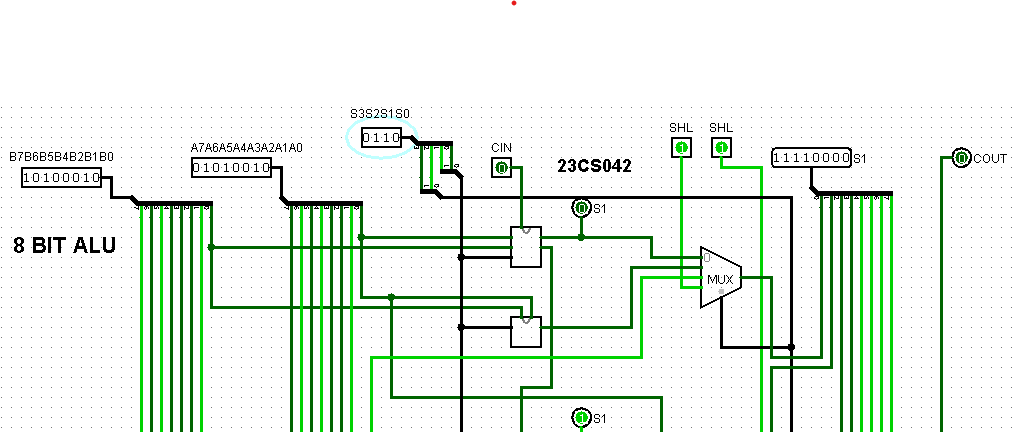


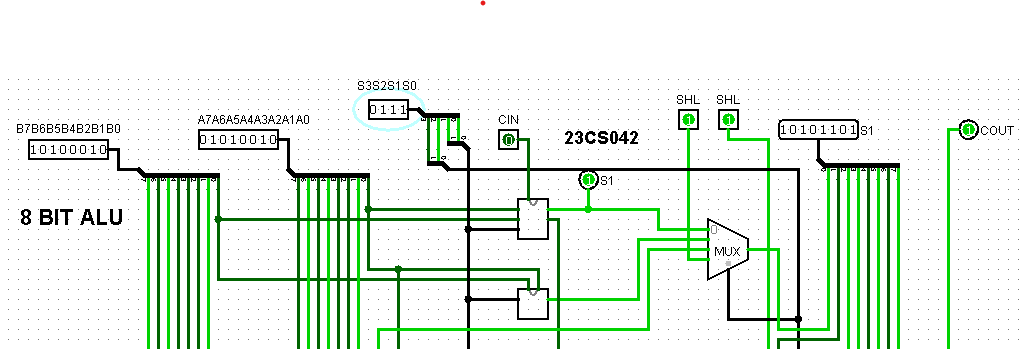
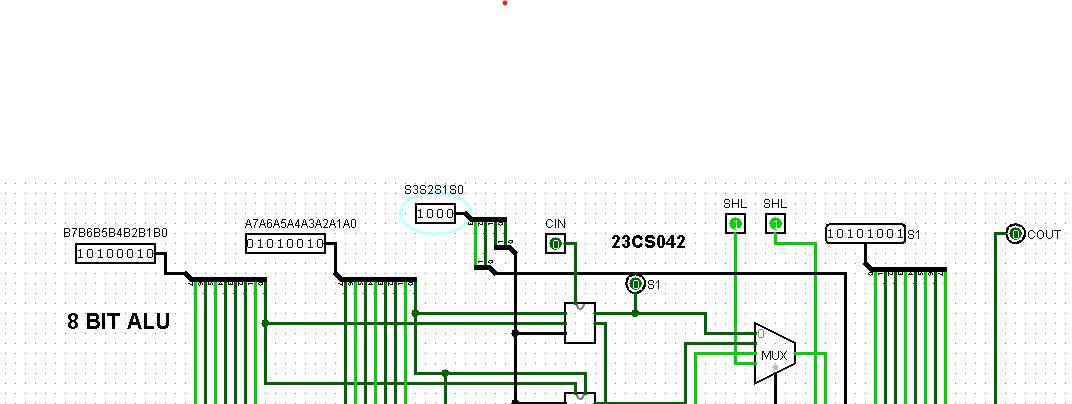


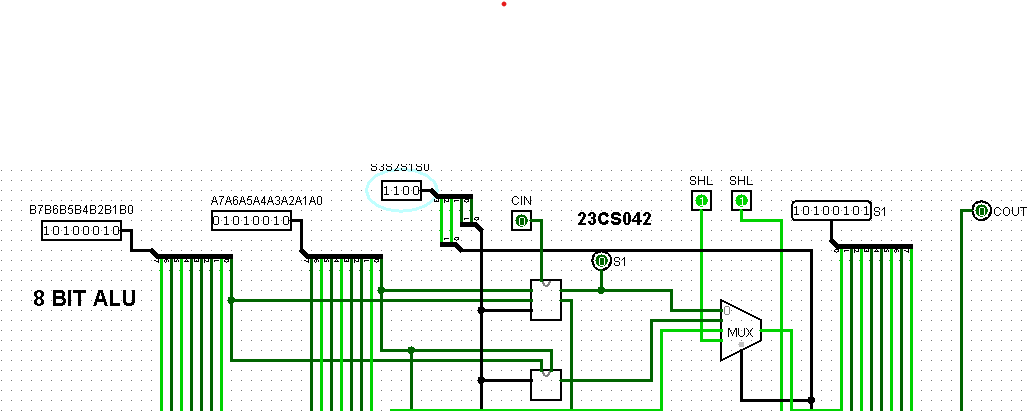










**CONCLUSION:**