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Lab 1  
Section: 04

Part A:

In Part A I made three figures each building in complexity to the one prior. I used the following truth table to decipher that for an “AND” gate if there are two switches, connect both switches to the gate and for the light to turn on both switches must be in the one position. As shown in the diagram the only place where the output is positive is in that position

|  |  |  |
| --- | --- | --- |
| *0* | *0* | *0* |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

In the diagram following I used the same logic however I added 2 inverters before the AND which changed the direction in which the switch worked

Part B:

I used 6 transistors in the original p[art of part b

Part C:

Part D: