Task 1

Half subtractor

|  |  |  |  |
| --- | --- | --- | --- |
| X | Y | Difference | Borrow |
| 0 | 0 | 0 | 0 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 1 | 0 |
| 1 | 1 | 0 | 0 |

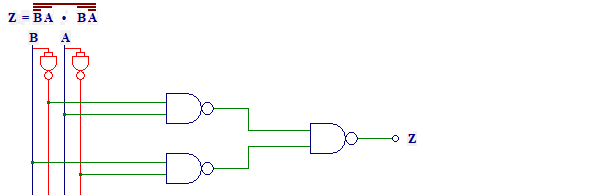
Full Subtractor

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| X | Y | Z(B-in) | Difference | Bout |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 1 | 1 |
| 0 | 1 | 0 | 1 | 1 |
| 0 | 1 | 1 | 0 | 1 |
| 1 | 0 | 0 | 1 | 0 |
| 1 | 0 | 1 | 0 | 0 |
| 1 | 1 | 0 | 0 | 0 |
| 1 | 1 | 1 | 1 | 1 |

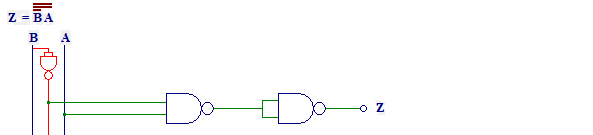
Task 3

HALF SUBTRACROR

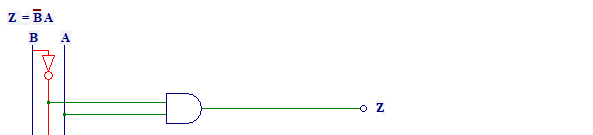
NAND (Difference)



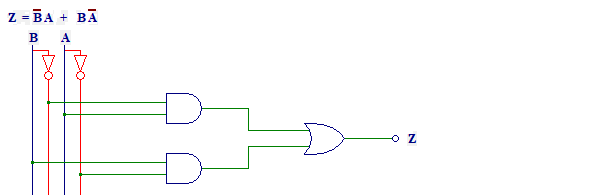
NAND (Borrow)



AND-OR (Borrow)

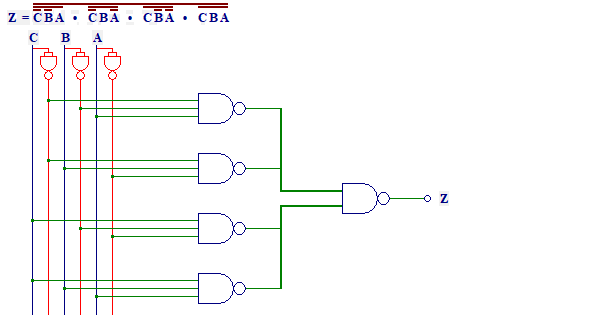


AND-OR (Difference)

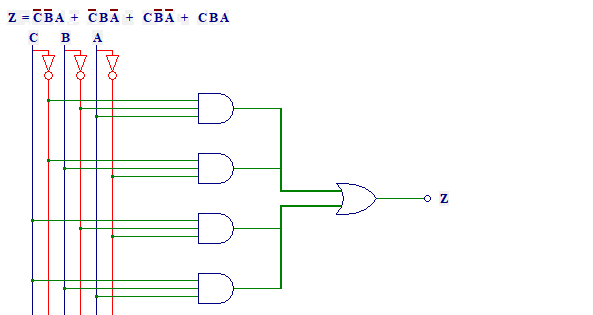


Full Subtractor

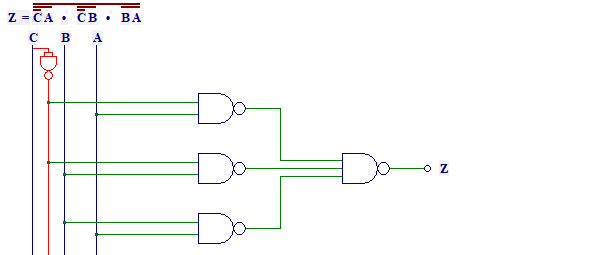
NAND



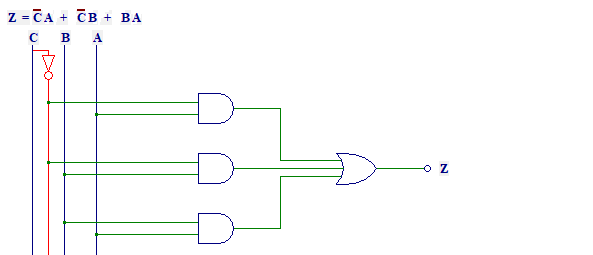
AND-OR



NAND (Borrow)

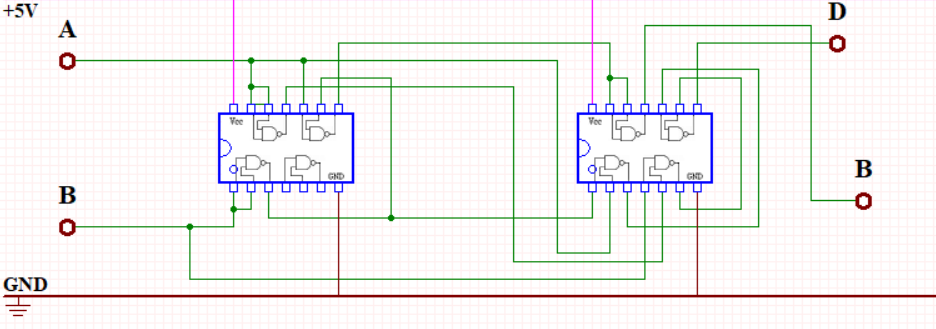


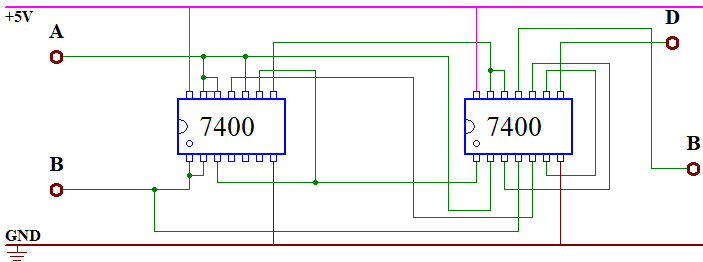
AND-OR (Borrow)



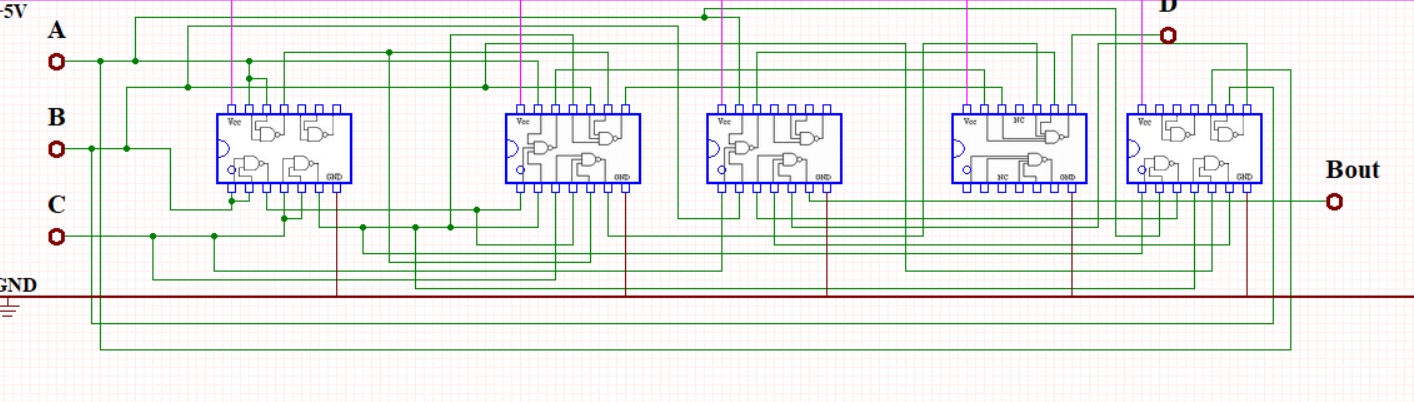
Task 4

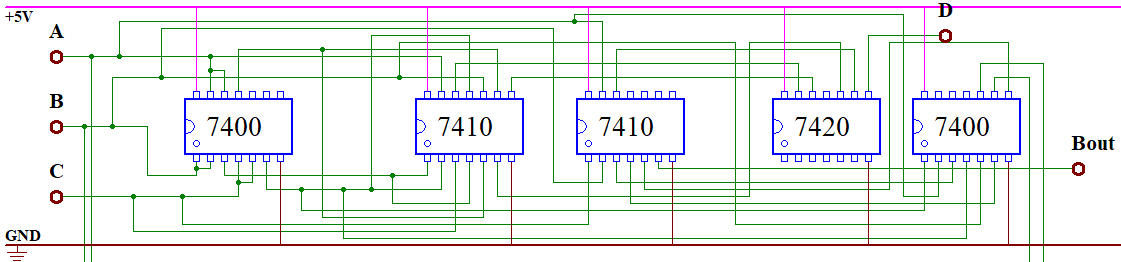
Half Subtractor





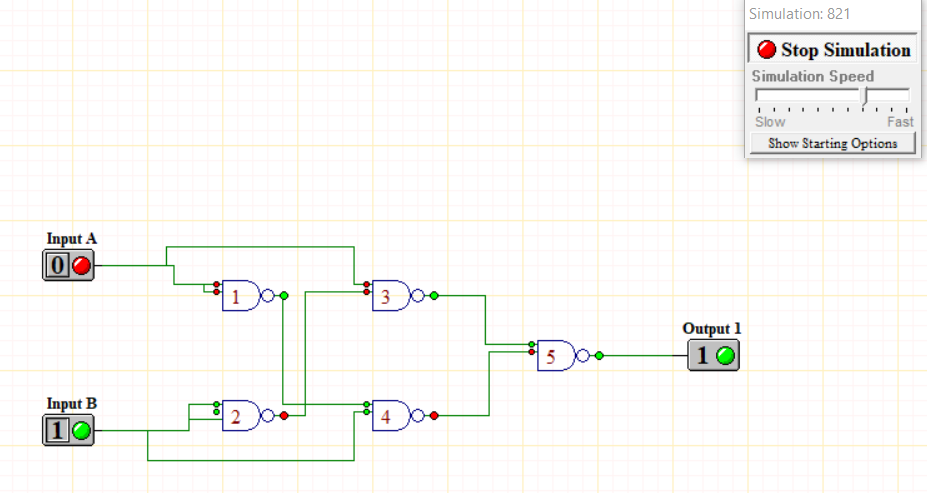
Full Subtractor



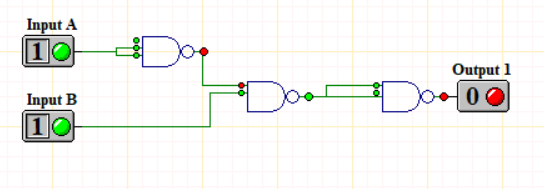


Task 5

Half Sub sim (Difference)

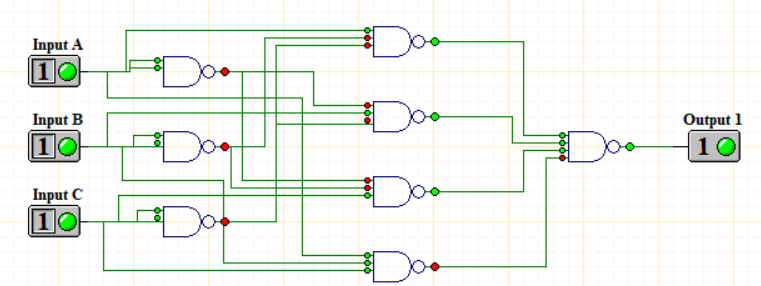


Borrow

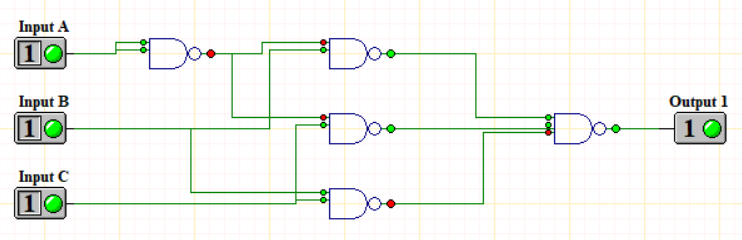


Full sub sim

Difference



Bout



Task 6

