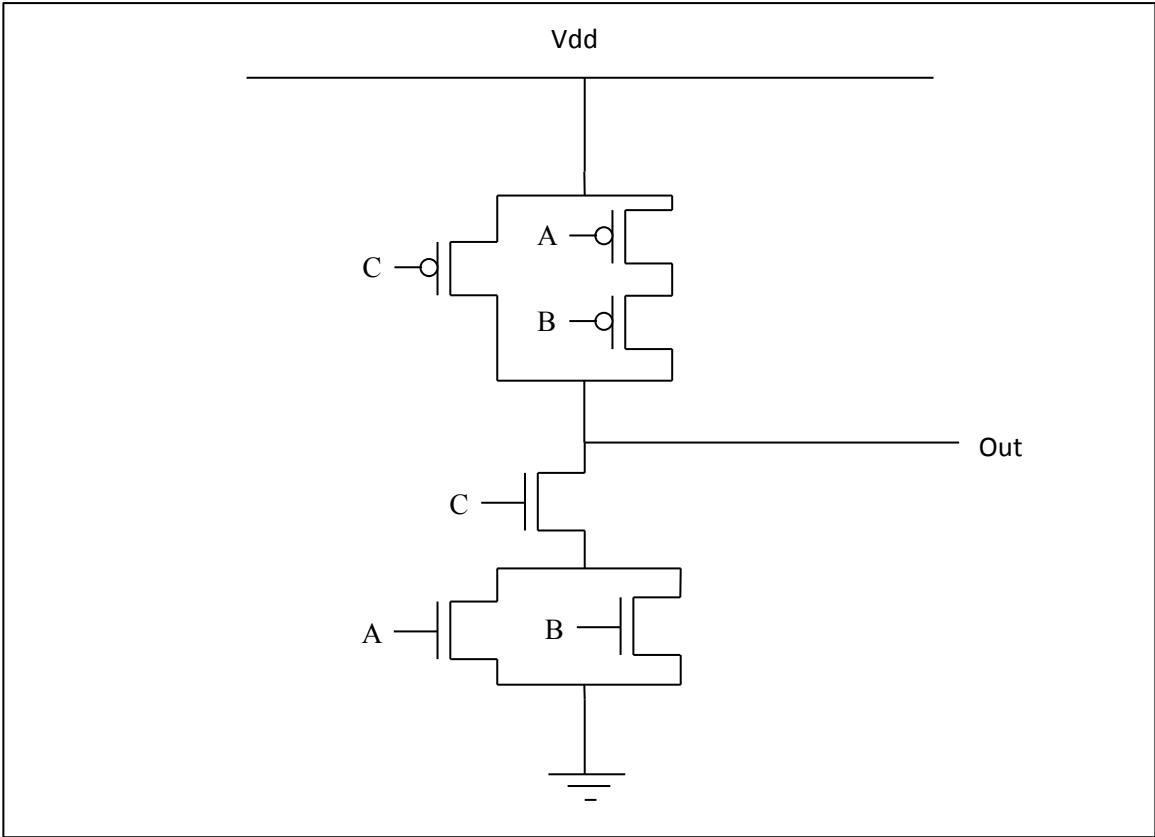


Homework 1 Solutions

1. Truth table for  $Y = \neg((A \mid B) \& C)$

A	B	C	A   B	Y
0	0	0	0	1
0	0	1	0	1
0	1	0	1	1
0	1	1	1	0
1	0	0	1	1
1	0	1	1	0
1	1	0	1	1
1	1	1	1	0

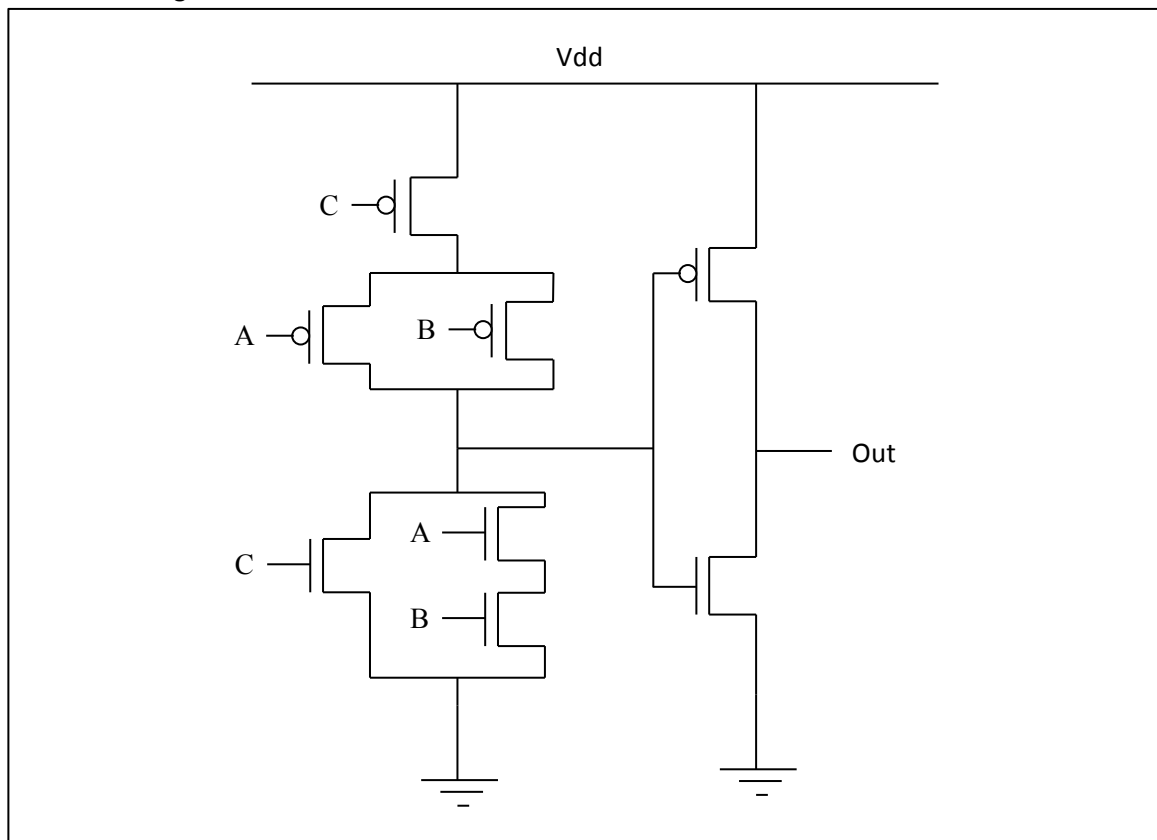
Schematic diagram:



2. Truth table for  $Y = A \& B \mid C$ :

A	B	C	A & B	Y	!Y
0	0	0	0	0	1
0	0	1	0	1	0
0	1	0	0	0	1
0	1	1	0	1	0
1	0	0	0	0	1
1	0	1	0	1	0
1	1	0	1	1	0
1	1	1	1	1	0

Schematic diagram:



3. (Extra Credit) This diagram represents a NAND gate.