

LAFAYETTE COLLEGE ENGINEERING DIVISION

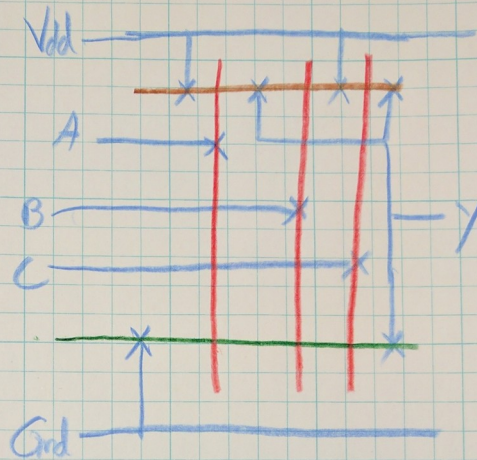
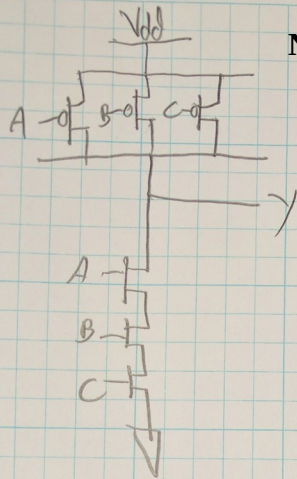
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Subject _____

Course _____

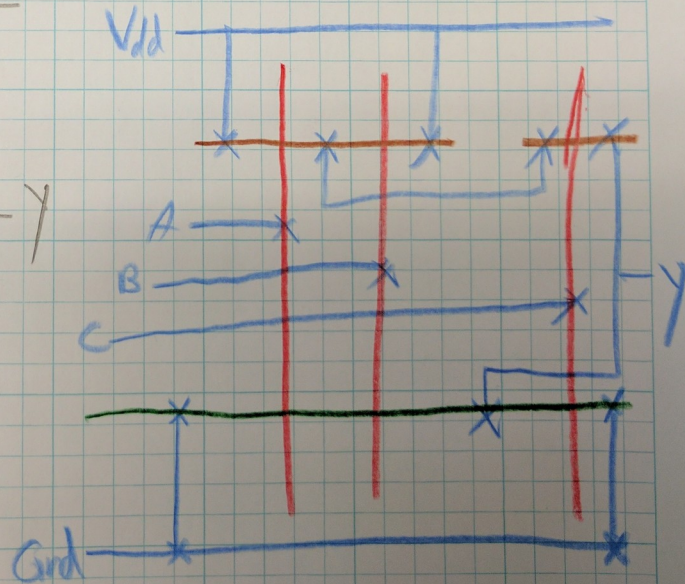
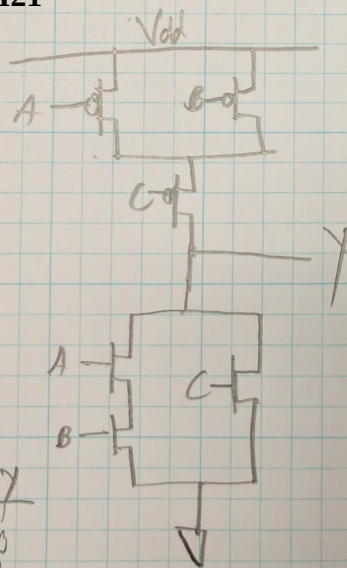
Date _____

Sheet _____ of _____

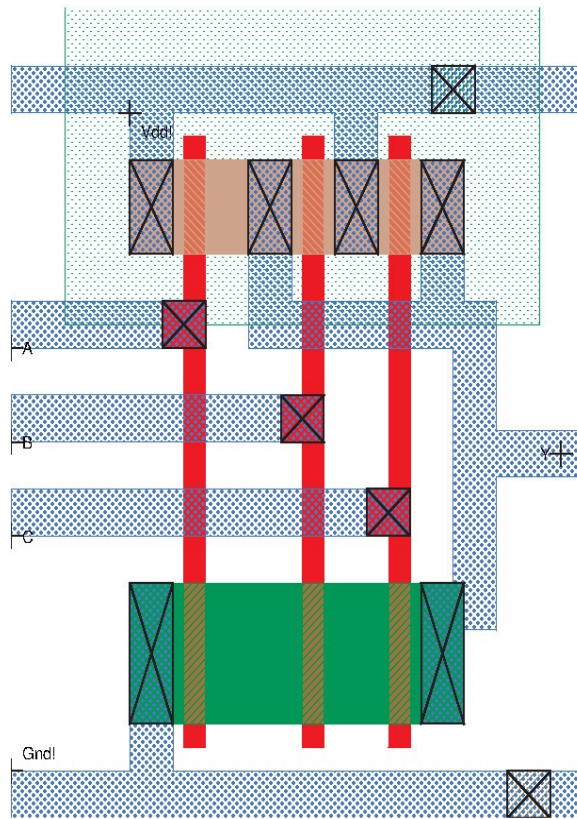
NAND



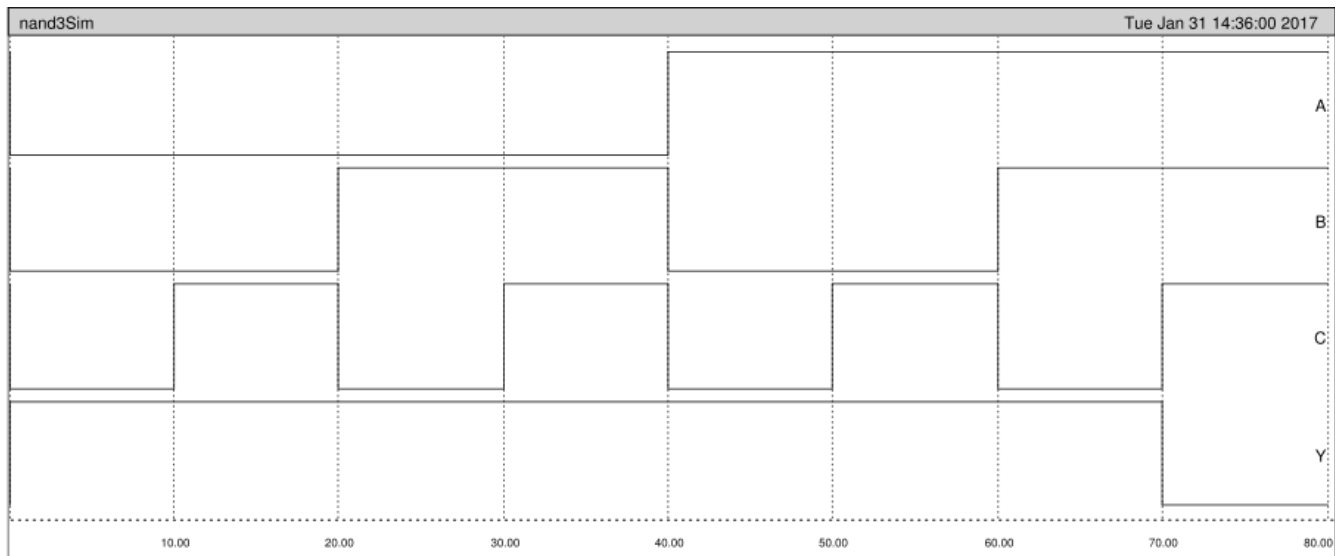
AOI21



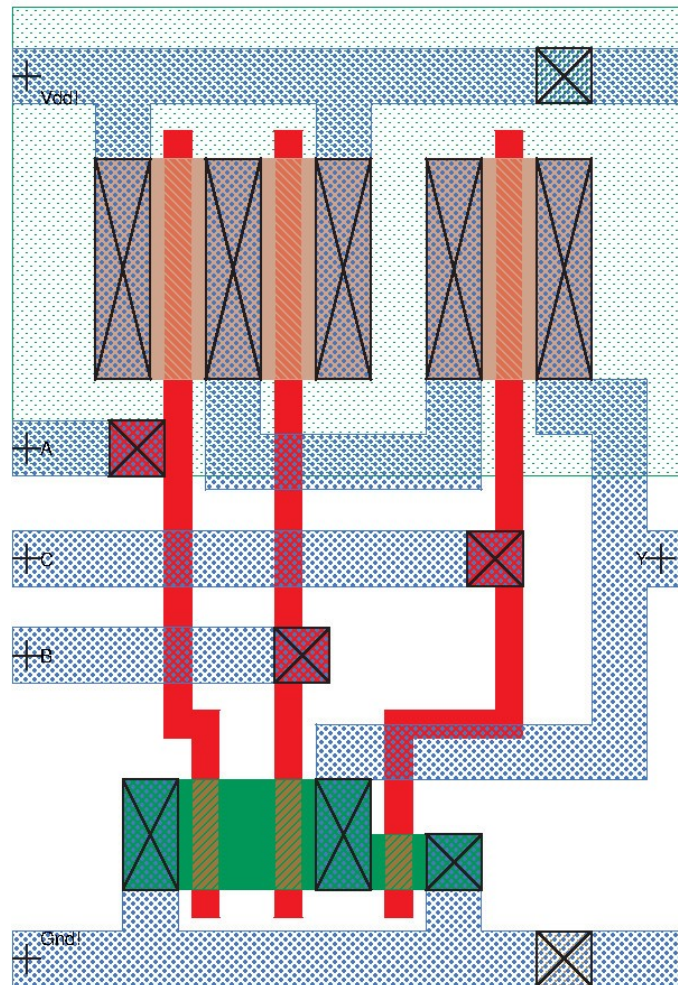
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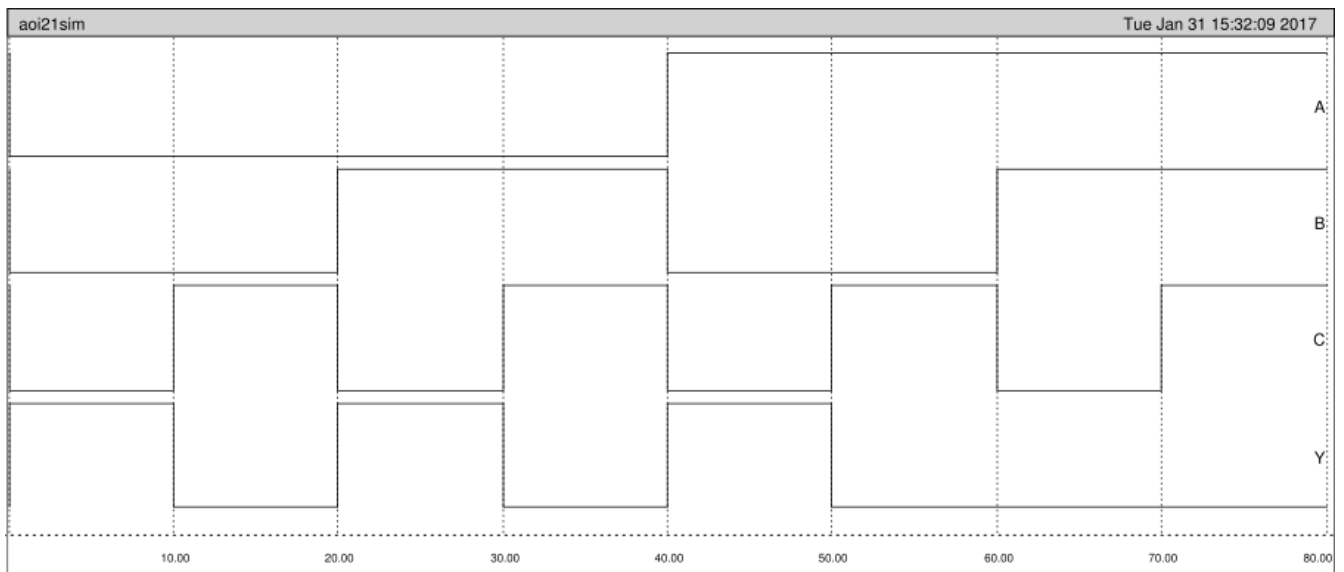
NAND3 Magic Layout



NAND3 Simulation Waveform



AOI21 Magic Layout



AOI21 Simulation Waveform

Cell Sizes and Area

Nand3 Dimensions: 53x69 lambda, 15.90x20.70 microns
Area: 3657 lambda², 329.13 microns²

AOI21 Dimensions: 49x71 lambda, 14.70x21.30 microns
Area: 3479 lambda², 313.11 microns²

Problems Encountered

The main problem we experienced was dealing with problems in the UI of Magic. We often used the wrong combination of macros, colons, and window selection to make the command window get into various weird states of lock up. When laying out the AOI21 circuit, we encountered problems in trying to minimize the cell area while not violating the DRC rules.

The Lab took a total of ~3hrs.