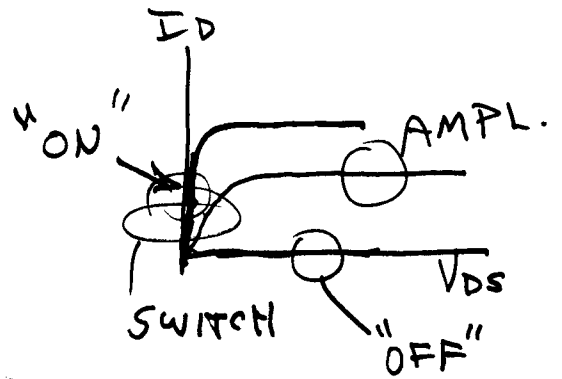
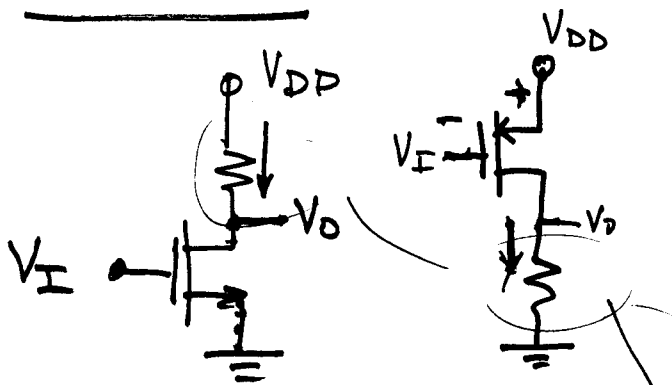


BASIC LOGIC CIRCUITS

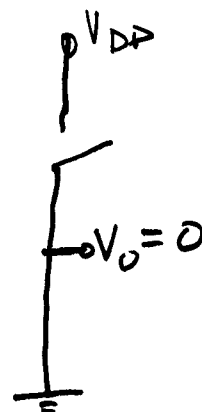
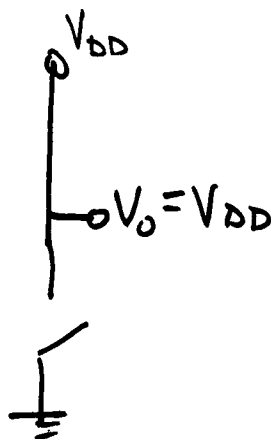
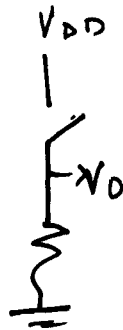
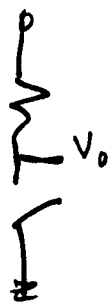
INVERTER



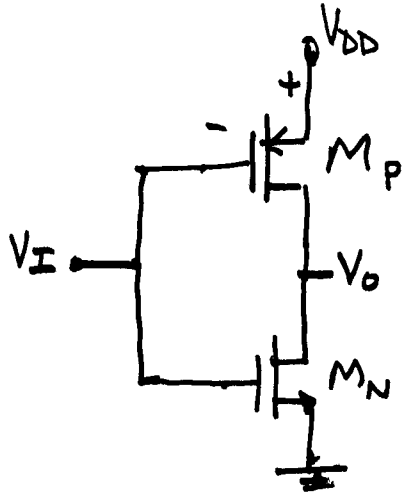
V_I	V_O
0V	V_{DD}
V_{DD}	0

V_I	V_O
0	V_{DD}
V_{DD}	0

- DISADVANTAGES:
- RESISTORS REQUIRE LARGE CHIP AREA
 - POWER CONSUMPTION

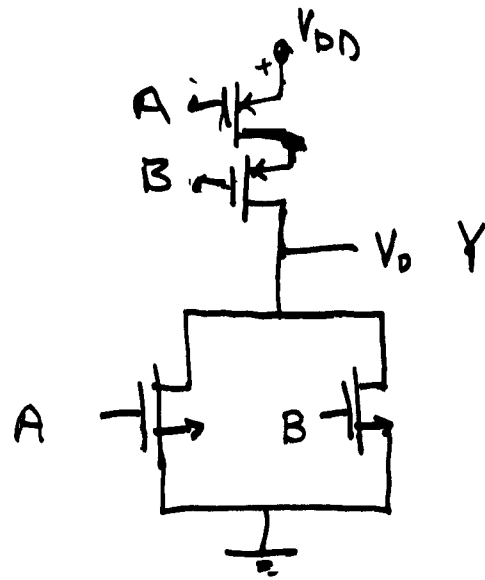
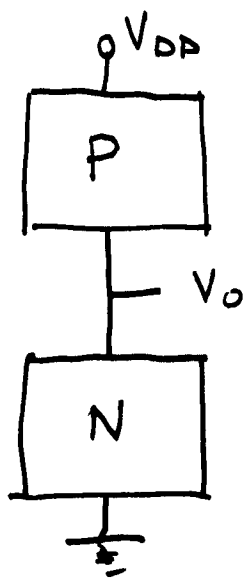


CMOS LOGIC



INVERTER

V_I	V_O	
0	V_{DD}	M_P is ON M_N is OFF
V_{DD}	0	M_P is OFF M_N is ON



$$Y = \overline{A+B}$$

NOR

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

$$Y = \overline{AB}$$

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

