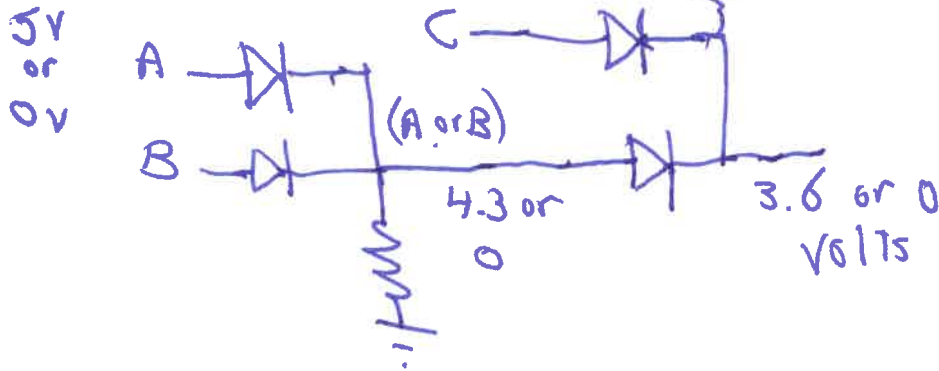
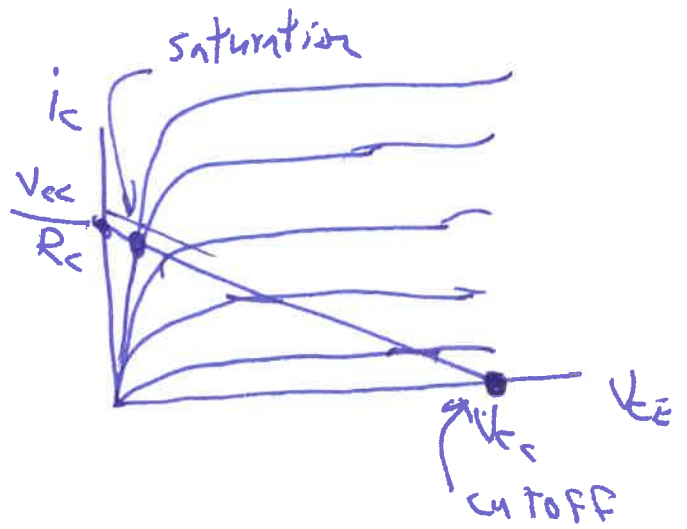
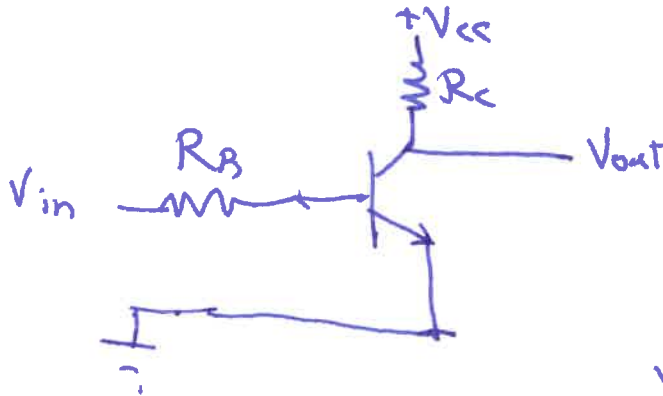


Remember Diode Logic

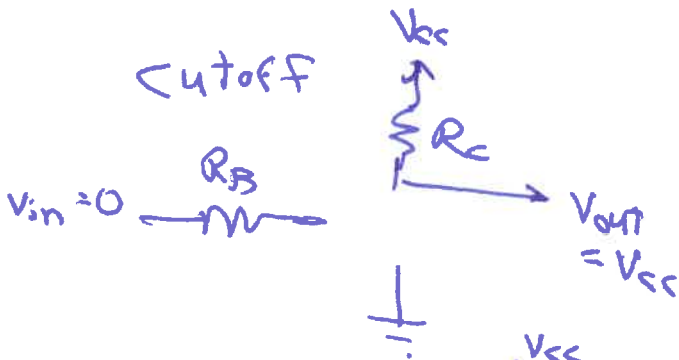


Transistor Logic

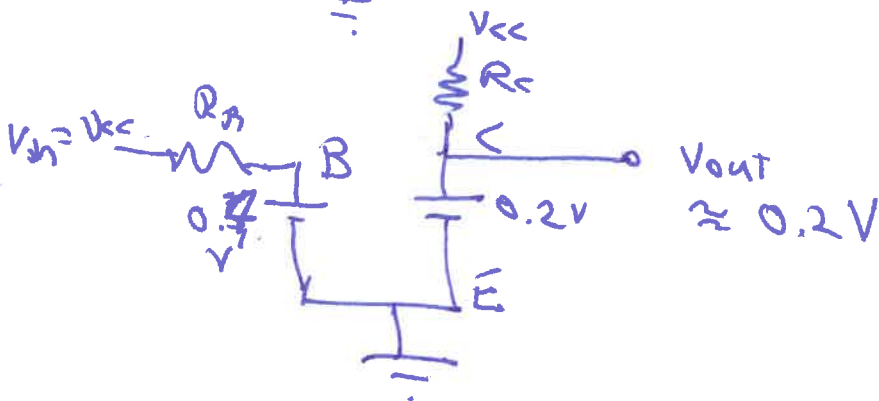
Need: Inverter
Boolean operator
or more.



Cutoff



$V_{in} = 0$
 $V_{out} = V_{cc}$

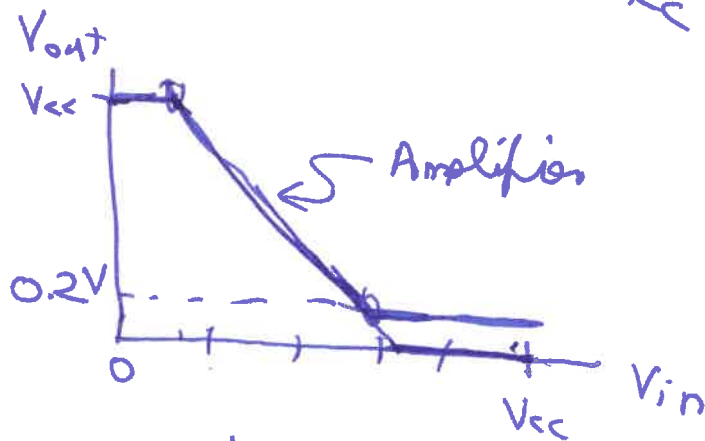


$$V_{out} = 5V$$

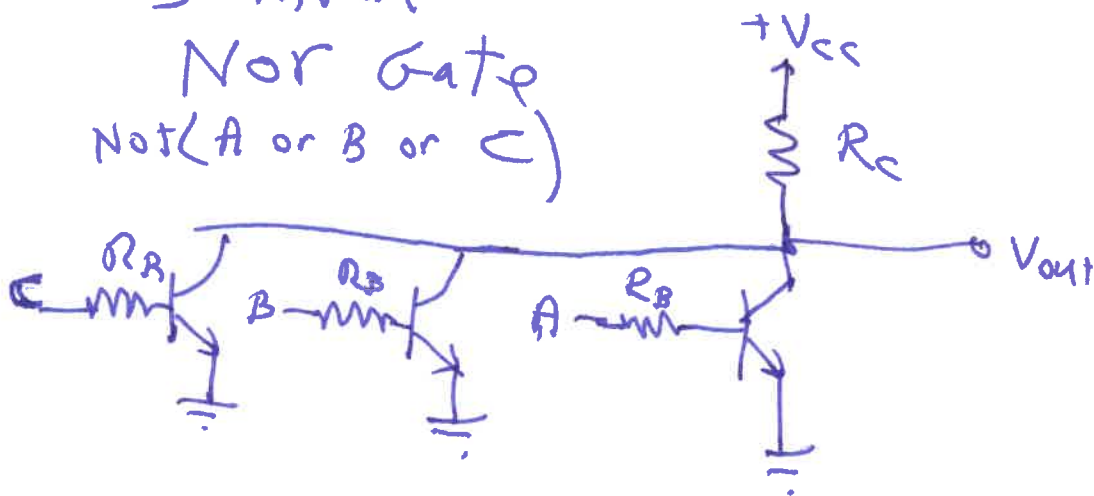
$$P = \frac{V_{out}^2}{R_{load}} = \frac{25V^2}{R_{load}}$$

$$V_{out} = 0$$

$$P = \frac{V_{cc}^2}{R_c} = \frac{25V^2}{R_c}$$

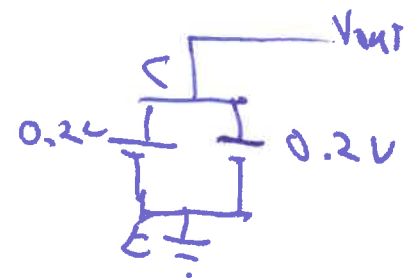


3-input
Nor Gate
Not(A or B or C)



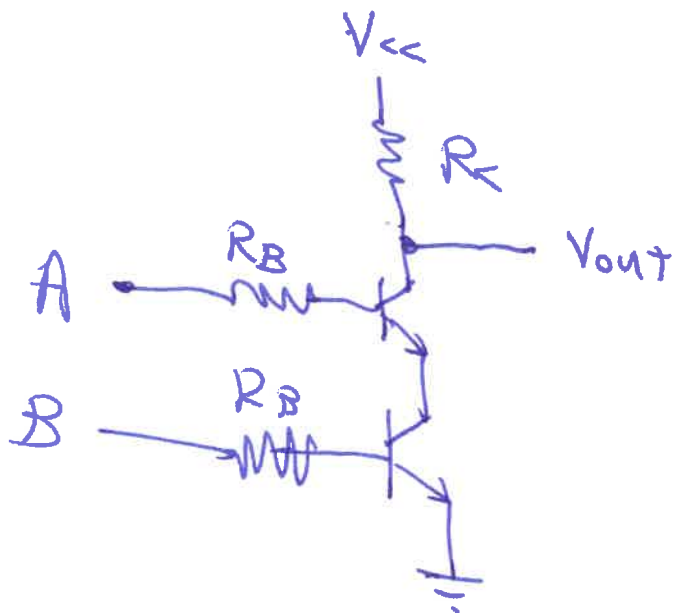
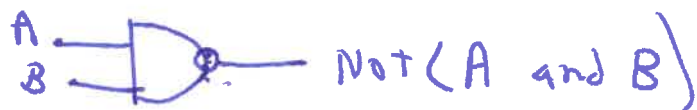
Truth Table

A	B	C	out
F	F	F	T
Everything Else			F

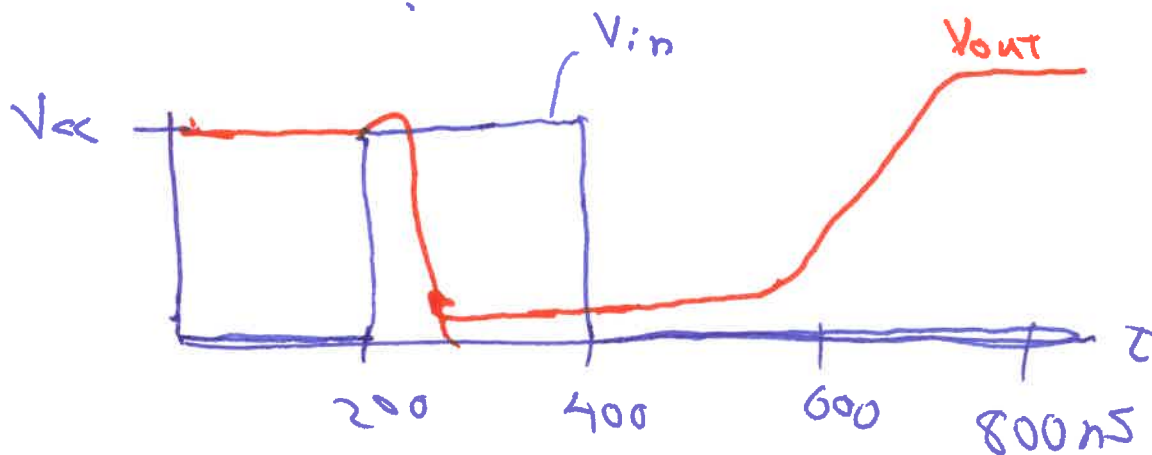


False = 0 volts

NAND (Not And)



A	B	out
T	T	F
T	F	T
F	T	T
F	F	T



Current mirror.

