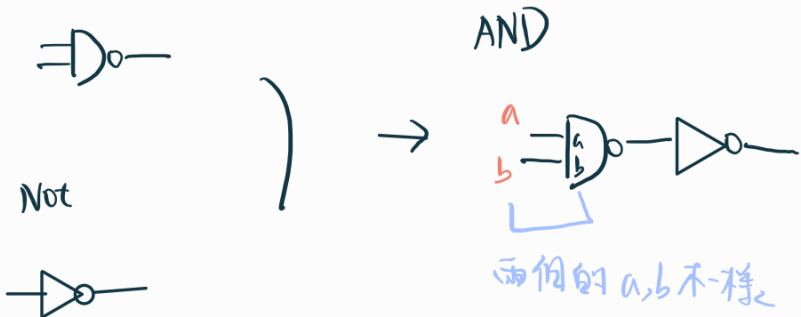


NAND



or



迪摩根 law:

$$\overline{XY} = \overline{X} + \overline{Y}$$

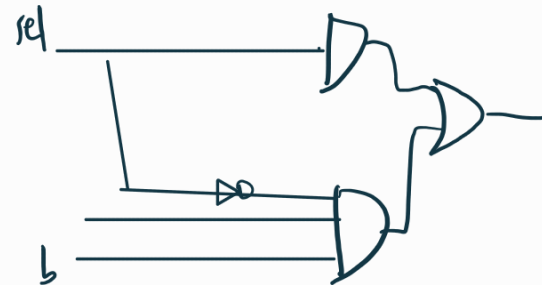
$$\overline{X+Y} = \overline{X} \overline{Y}$$

XOR

Mux	a	b	out
0	0	0	0
0	0	1	0
0	1	0	1
0	1	1	1
1	0	0	0
1	0	1	1
1	1	0	0
1	1	1	1

sel \ ab	00	01	11	10
0	0	0	1	1
1	0	1	1	0

$$out = sel \oplus b + s \quad a$$



迪米根 law

X	Y	$\bar{X}\bar{Y}$	$X+Y$	$\overline{X+Y} = \bar{X} \cdot \bar{Y}$
0	0	1	0	1
0	1	0	1	0
1	0	0	1	0
1	1	0	1	0

XOR



X \ Y	0	1
0	0	1
1	1	0

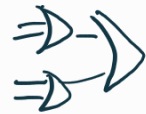
$$X\bar{Y} + \bar{X}Y$$



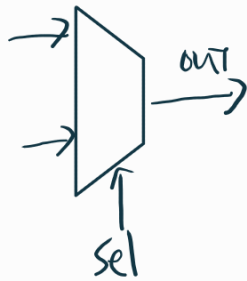
三输入的 or



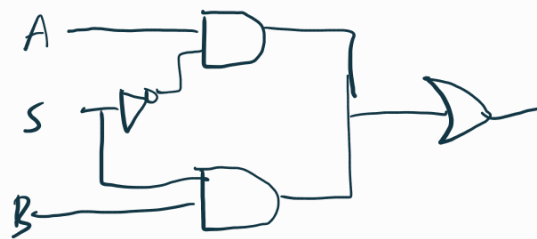
四输入的 or



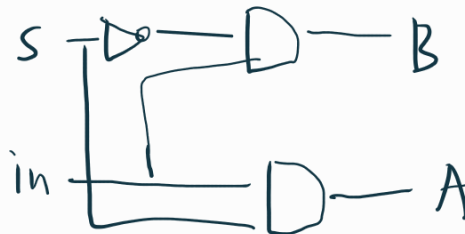
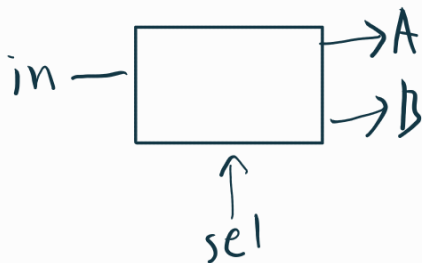
Mux



$$(A \cdot \bar{S}) + (B \cdot S)$$



DMUX



Select	Input	Outputs	
S	in	A	B
0	0	0	0
0	1	0	1
1	0	0	0
1	1	1	0