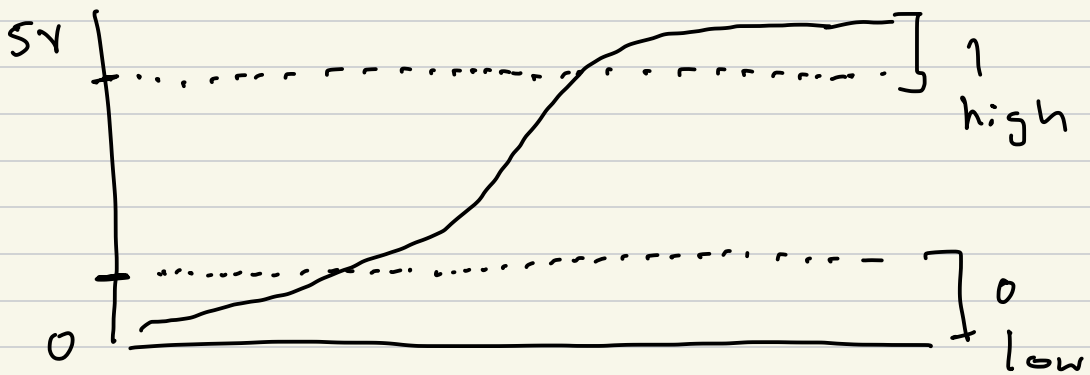


CS315-02 Lab Intro to Digital Design

Digital Design

Analog $\rightarrow$ Digital
circuits circuits

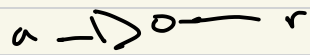
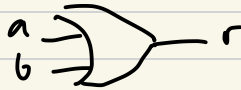
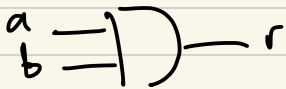


wires & devices $\rightarrow$ gates

AND

OR

NOT



C code $r = a \& b$

$r = a | b$

$r = \sim a$

Boolean Algebra $r = a \cdot b$

$r = a + b$

$r = \overline{a}$

Logic $r = a \wedge b$

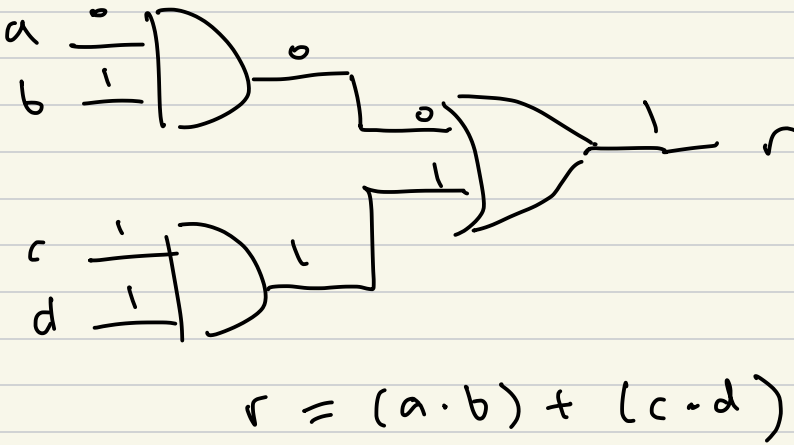
$r = a \vee b$

$r = \neg a$

a	b	r
0	0	0
0	1	0
1	0	0
1	1	1

a	b	r
0	0	0
0	1	1
1	0	1
1	1	1

a	r
0	1
1	0



Abstraction

Goal: build an 8-bit adder

