Guião 8

1

Inputs			Outputs	
C_{im}	A	B	C_{out}	S
0	0	0	0	0
0	0	1	0	1
0	1	0	0	1
0	1	1	1	0
1	0	0	0	1
1	0	1	1	0
1	1	0	1	0
1	1	1	1	1

C_{out}

C_{im} \ AB	00	01	11	10
0	0	0	1	0
1	0	1	1	1

$C_{out} = AB + C_{im}B + C_{im}$

S

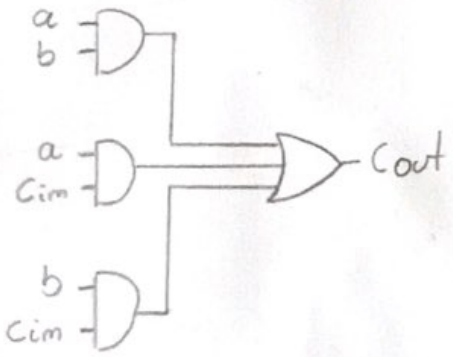
C_{im} \ AB	00	01	11	10
0	0	1	0	1
1	1	0	1	0

$S = (\overline{C_{im}} \times \overline{A}B) + (\overline{C_{im}} \times A\overline{B}) + (C_{im} \times \overline{A} \times \overline{B}) + (C_{im} \times A \times$

$= \overline{C_{im}}\,(\overline{A}B + A\overline{B}) + C_{im}\,(\overline{A}\,\overline{B} + AB) =$

$= \overline{C_{im}}\,(A \oplus B) + C_{im}\,(\overline{A \oplus B}) =$

$= C_{im} \oplus (A \oplus B)$



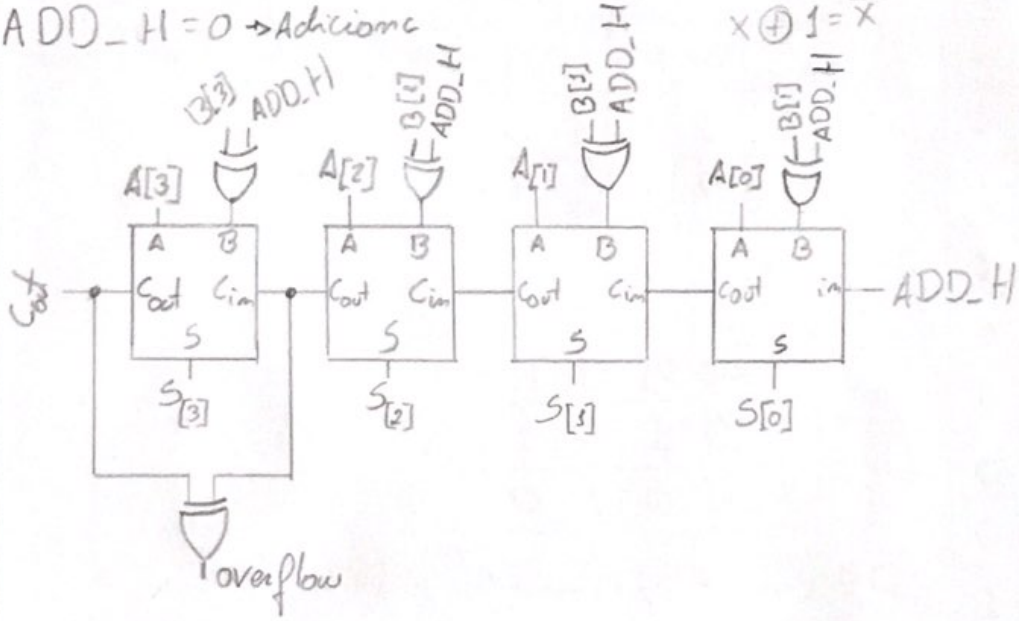
2

ADD_H = 1 → subtrac

ADD_H = 0 → Adicionc

$X \oplus 0 = X$

$X \oplus 1 = \overline{X}$



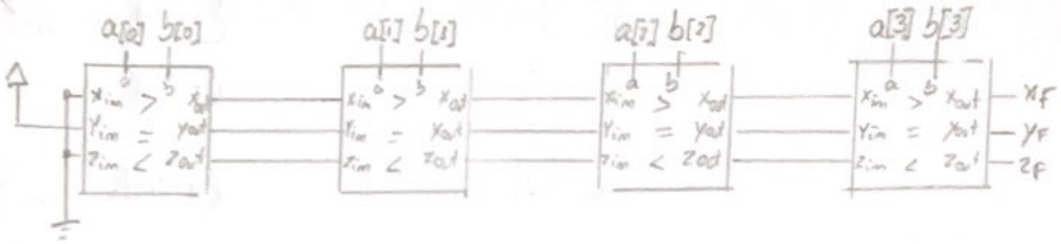


Tabela de verdade se o valor anterior for igual

y_{in}	a_i	b_i	y_{out}
1	0	0	1
1	0	1	0
1	1	0	0
1	1	1	1

$$y_{out} = y_{in}\,\bar{a}\,\overline{b_{in}} + y_{in}\,a\,b_{in} = y_{in} \times (\overline{a_{in} \oplus b_{in}})$$

x_{in}	z_{in}	a_i	b_i	x_{out}	z_{out}
1	0	0	0	1	0
1	0	0	1	0	1
1	0	1	0	1	0
1	0	1	1	1	0
0	1	0	0	0	1
0	1	0	1	0	1
0	1	1	0	1	0
0	1	1	1	0	1

x_{out}

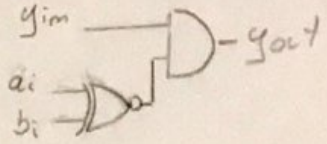
$a_i b_i$ \ $x_{in} z_{in}$	00	01	11	10
00	X	0	X	1
01	X	0	X	0
11	X	0	X	1
10	X	1	X	1

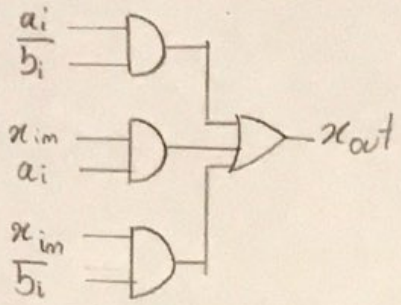
$$x_{out} = a_i\,\overline{b_i} + x_{in}\,a_i + x_{in}\,\overline{b_i}$$

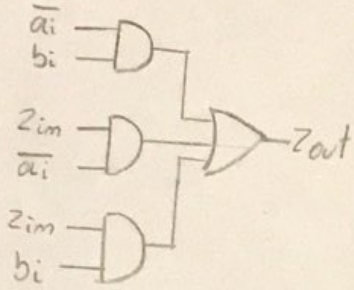
z_{out}

$a_i b_i$ \ $x_{in} z_{in}$	00	01	11	10
00	X	1	X	0
01	X	1	X	1
11	X	1	X	0
10	X	0	X	0

$$z_{out} = \overline{a_i}\,b_i + z_{in}\,\overline{a_i} + z_{in}\,b_i$$


y_{in}
a_i
b_i
y_{out}


a_i
$\overline{b_i}$
x_{in}
a_i
x_{in}
$\overline{b_i}$
x_{out}


$\overline{a_i}$
b_i
z_{in}
$\overline{a_i}$
z_{in}
b_i
z_{out}