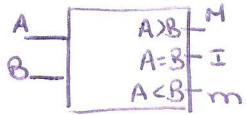


SL
12-Oct-2011



A	B	M	I	m
0	0	0	1	0
0	1	0	0	1
1	0	1	0	0
1	1	0	1	0

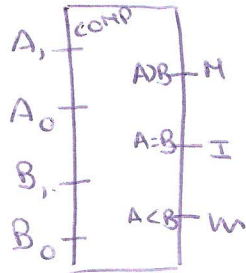
M	A
0	1
1	0

$$I = \bar{A}\bar{B} + AB$$

$$M = A\bar{B}$$

$$m = \bar{A}B$$

I	A
0	1
1	0

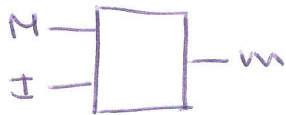
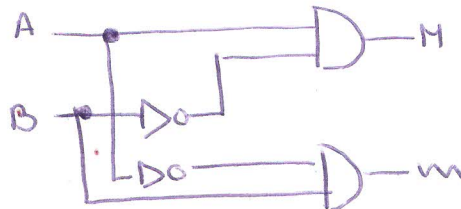
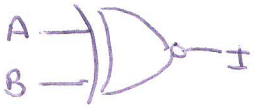


m	A
0	1
1	0

$$A > B = (A_1 > B_1) + (A_1 = B_1) \cdot (A_0 > B_0)$$

$$A < B = (A_1 < B_1) + (A_1 = B_1) \cdot (A_0 < B_0)$$

$$A = B = (A_1 = B_1) \cdot (A_0 = B_0)$$



M	I	m
0	0	1
0	1	0
1	0	0
1	1	X

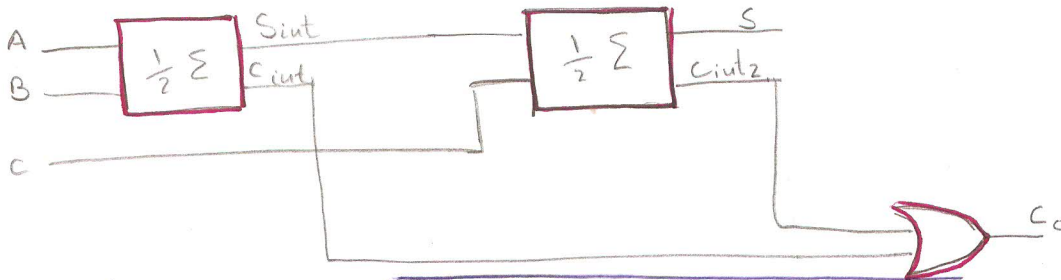
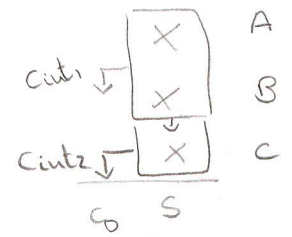
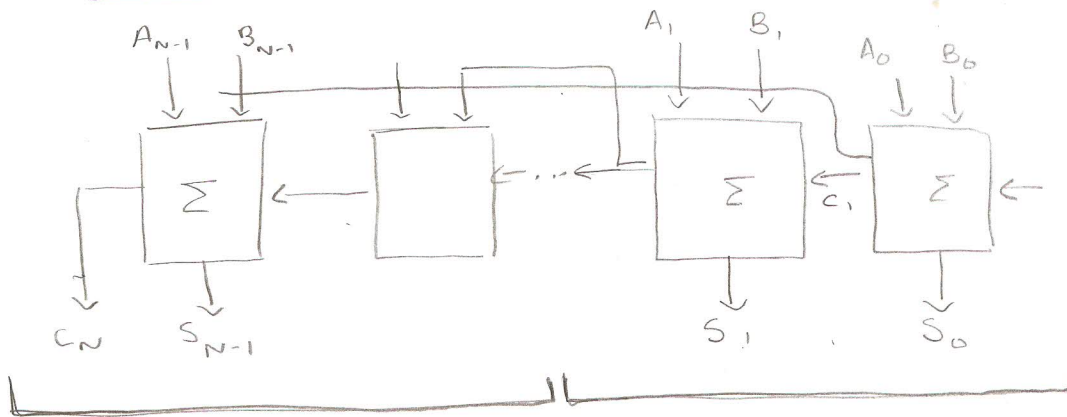
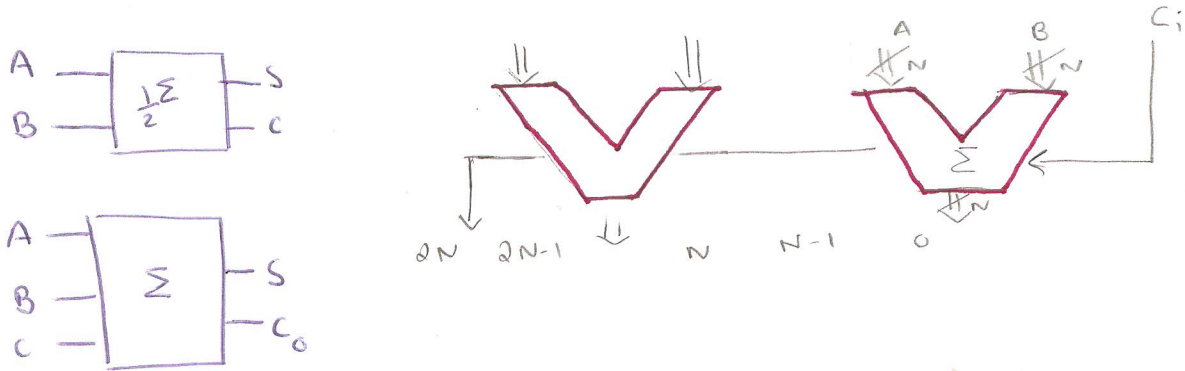
m	I
0	1
1	X

$$m = \bar{M}\bar{I}$$

M	m	I
0	0	1
0	1	0
1	0	0
1	1	X

SL

13. Out-2011



$$C_0 = C_{int1} + C_{int2}$$

Entrazadan			S.C.		Sint1		Cint1		Sint2		Cint2		S		C0	
A	B	Ci	S	C0	Sint1	Cint1	Sint2	Cint2	S	C0	S	C0	S	C0	S	C0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	1	0	0	0	1	0	1	0	1	0	1	0	1	0
0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
0	1	1	0	1	1	0	0	1	0	1	0	1	0	1	0	1
1	0	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
1	0	1	0	1	1	0	0	1	0	1	0	1	0	1	0	1
1	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
1	1	1	0	1	0	1	1	0	1	0	1	0	1	0	1	0

$$(N)^2 = M - N \text{ modulo } M$$

$$M = 2^k \quad k = 4 \text{ bits}$$

bits de representação

$$\text{COMP/2} \rightarrow \boxed{\text{COMP} + 1}$$

$$(s) = 0101$$

$$(s)^2 = 2^4 - s \text{ mod } 2^4$$

$$= (11)_{10} = \underbrace{1011}_2$$

$$0101$$

$$\text{COMP/1}$$

$$(N)^1 = (M-1) - N$$

$$k = 4 \text{ bits}$$

$$(s)^1 = (2^4 - 1) - s$$

$$= 15 - s = (10)_{10}$$

$$= 1010_2$$

Em comp/2

menor	maior
$-(2^k + 1)$	2^k

6 bits

$$+12 \equiv 001100$$

$$-12 \equiv 110100$$

$$+13 \equiv 001101$$

$$-13 \equiv 110011$$

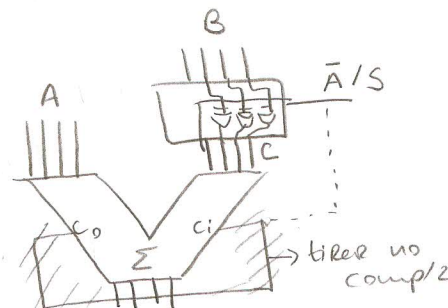
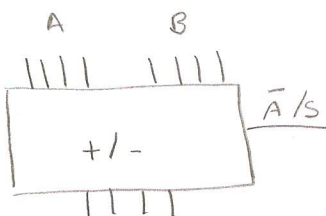
	comp/2	comp/1
+12 001100	+12 001100	001100
+13 001101	-13 110011	110010
+25 011001	-1 111111	111110
	0 000001	0 00001

-12 110100	110100	110011
+13 001101	001101	110010
+1 000001	000001	1000101
	000001	100010
		011001

← 25

NOTA
Se fizermos os cálculos em comp/2, o resultado vem em comp/2
em comp/1, o transporte resultante deve ser somado.

Sumador / Subtractor



A/S	B	C
0	0	0
0	1	1
1	0	1
1	1	0

$$C = \bar{A}/S \oplus B$$

Se $\bar{A}/S = 0$ então $A+B$
($\bar{A}/S = 1$) senão $A-B$

Se $\bar{A}/S = 0$ então B
senão $\bar{B}$