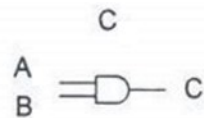
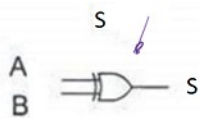
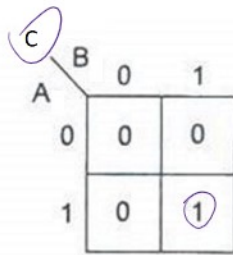
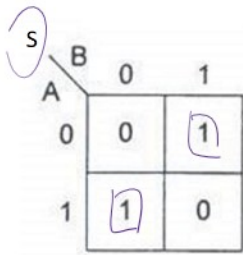
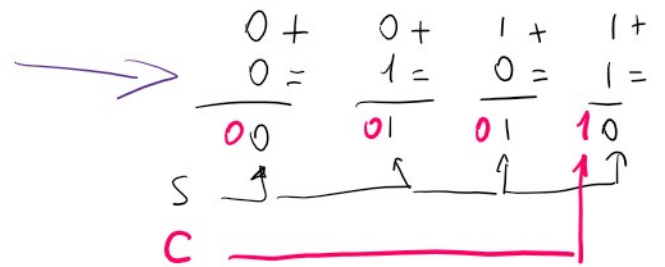
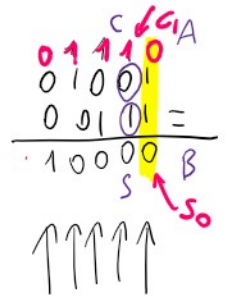
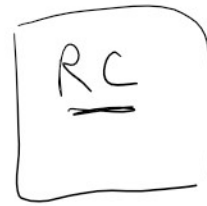
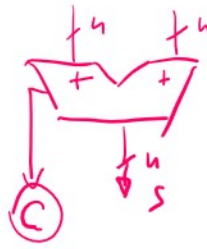


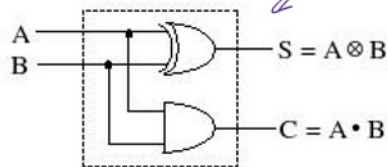
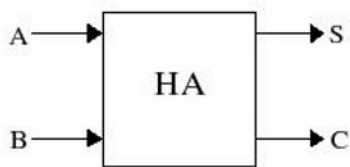
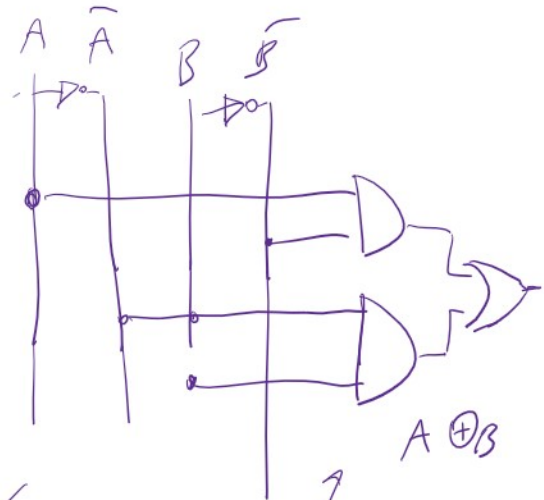
Tabella di verità del semi-sommatore (half adder)

IN		OUT	
A	B	S	C
0	0	0	0
0	1	1	0
1	0	1	0
1	1	0	1

Tabella della verità del semisommatore



$\rightarrow \bar{A} \cdot B + A \cdot \bar{B}$
 $A \oplus B$



Simbolo logico e realizzazione circuitale di un HA

Il sommatore completo
(full adder)

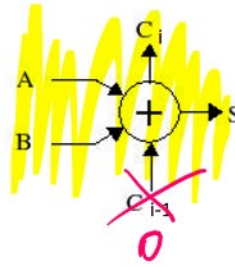
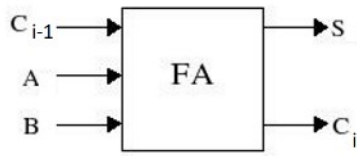
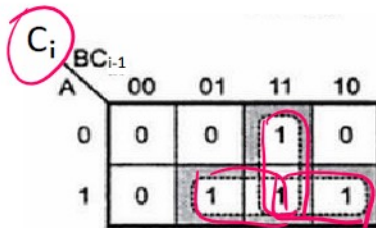


Tabella di verità del
sommatore completo a 1 bit
(full adder)

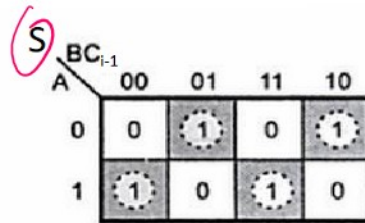
T.V. F.A.

A	B	C_{i-1}	S	C_i
0	0	0	0	0
0	0	1	1	0
0	1	0	1	0
0	1	1	0	1
1	0	0	1	0
1	0	1	0	1
1	1	0	0	1
1	1	1	1	1

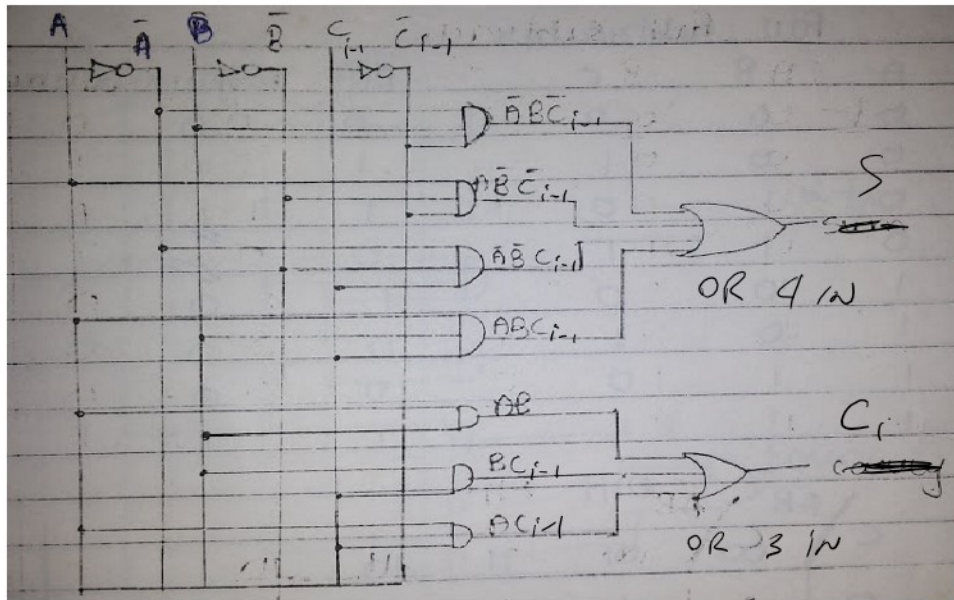
Tabella della verità del full adder



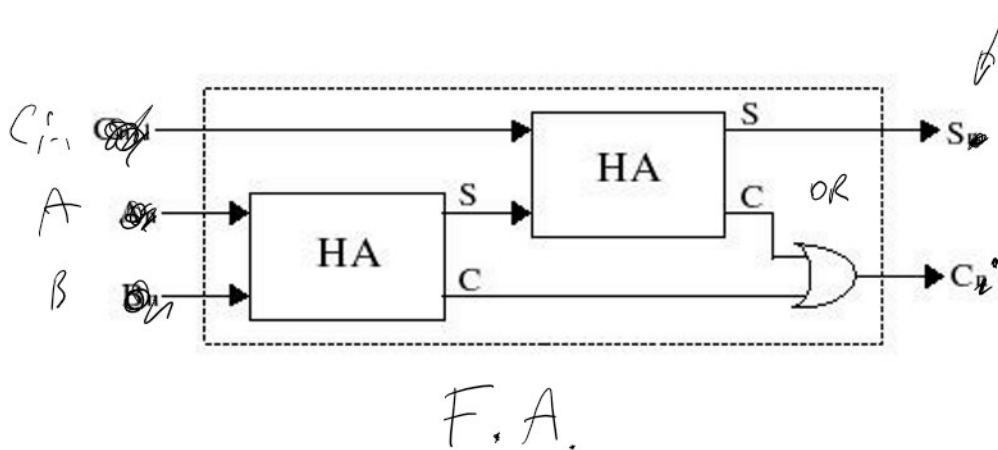
$$C_i = AB + A C_{i-1} + B C_{i-1}$$



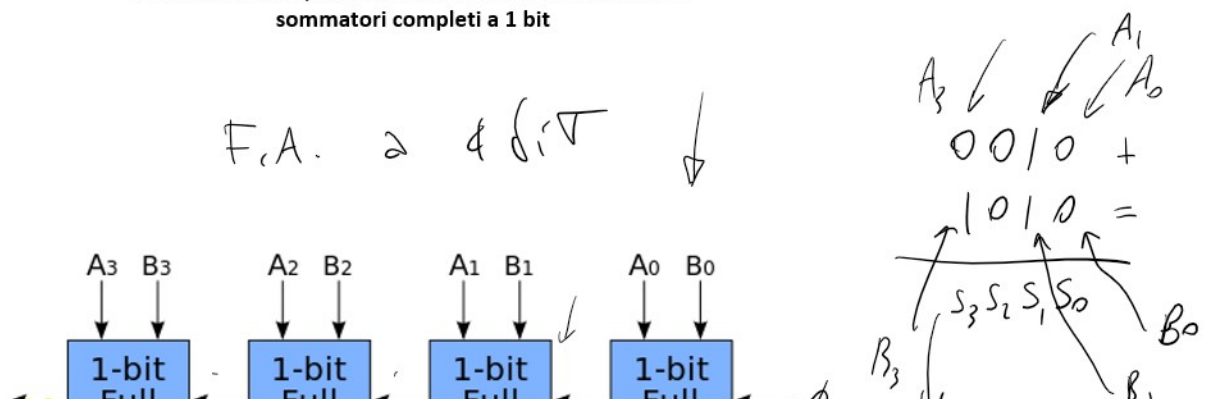
$$S = \bar{A} \bar{B} C_{i-1} + \bar{A} B \bar{C}_{i-1} + A \bar{B} \bar{C}_{i-1} + A B C_{i-1}$$

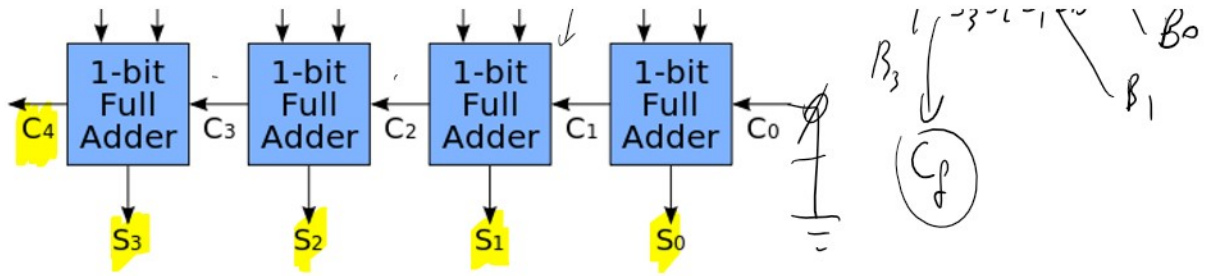


Sintesi del sommatore completo a 1 bit
mediante due semi- sommatore ad 1 bit
ed una porta OR



Sommatore completo ad n bit, sintetizzato mediante n
sommatori completi a 1 bit



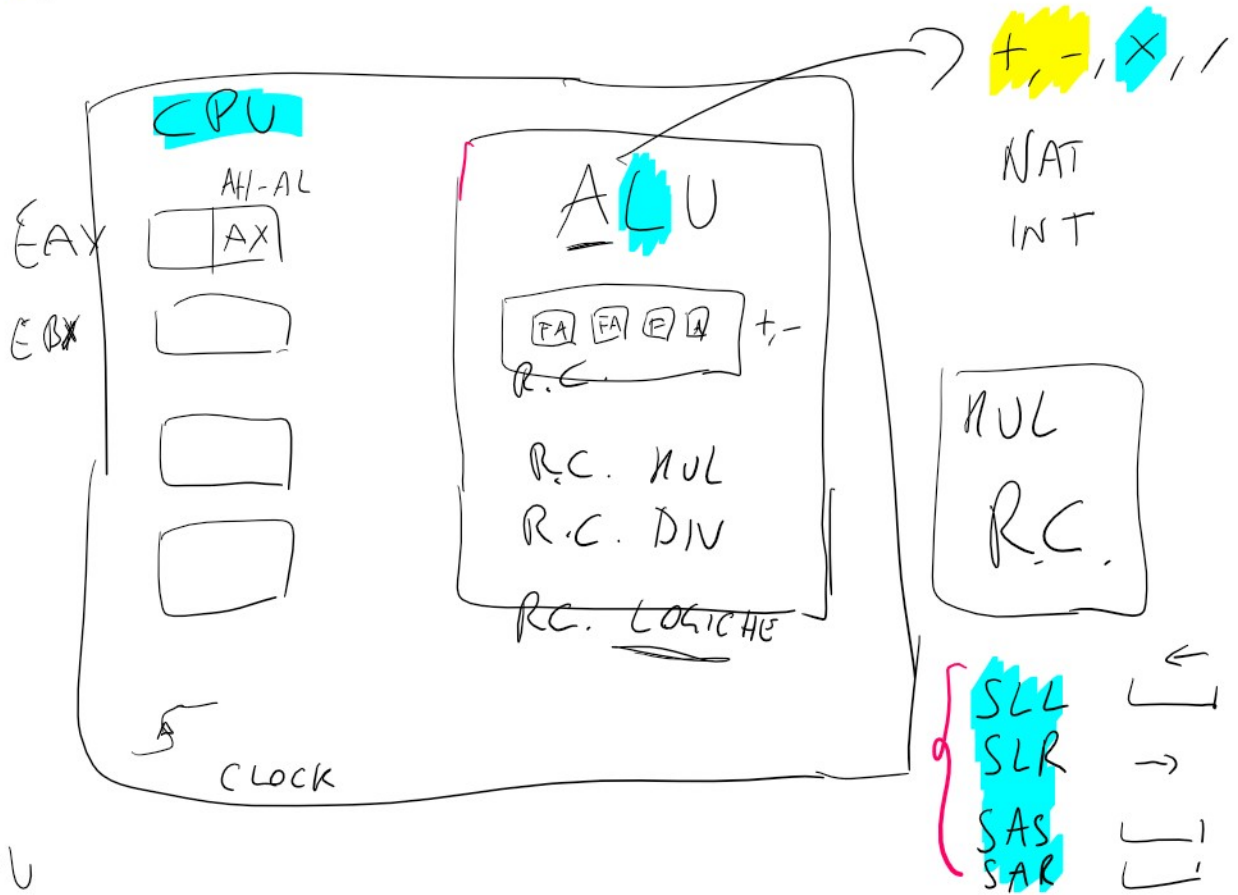


F.A. ad N-bit

8-bit `ADD %BL, %AL` $AL \leftarrow AL + BL$

`ADD %BX, %AX`

`ADD %ECX, %EAX`

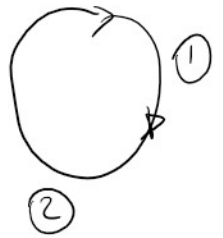


CPU

1) Prelevare su memoria le prossime istruzioni da eseguire

1) ... a prossima ...
da eseguire

2) DECOD. e per la si esegue



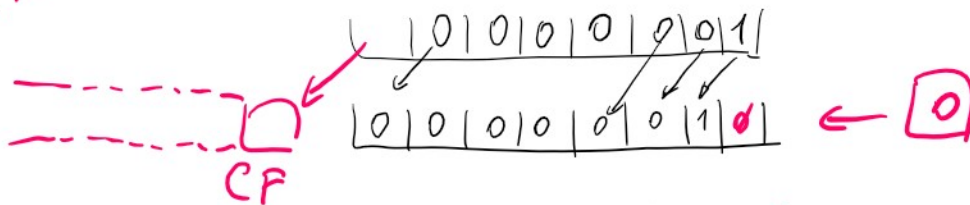
- INC
 - DEC
 - ADD
 - MUL
 - DIV
 - IMUL
 - IDIV
 - SHL
 - SHR
- ⇒ var, come a
- %AL

_main: mov \$0b10000001, %AL

→ SHL \$1, %AL → %AL

%EF

EF



0x02 →
0000