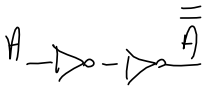
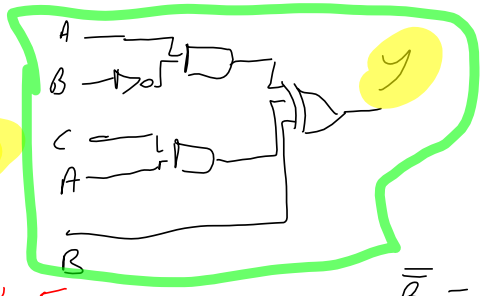
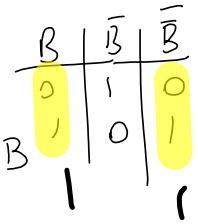
y = uscita FUNZIONE DI COMMUTAZIONE

$y = A\bar{B} + CA \oplus B$ ⟶ RETE LOGICA





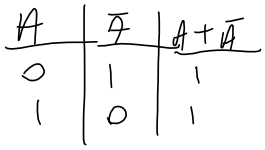


$\bar{\bar{B}} = B$

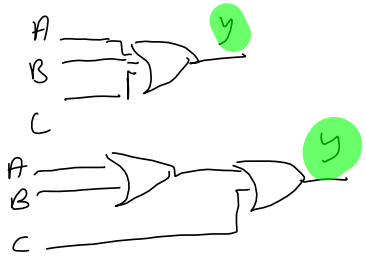
ALGEBRA DI BOOLE

A

NOT	AND	OR
$\bar{\bar{A}} = A$	$A \cdot \emptyset = \emptyset$	$A + 1 = 1$
	$A \cdot 1 = A$	$A + 0 = A$
	$A \cdot A = A$	$A + A = A$
	$A \cdot \bar{A} = \emptyset$	$A + \bar{A} = 1$



Proprietà	AND	OR
Commutativa	$A \cdot B = B \cdot A$	$A + B = B + A$
Associativa	$A \cdot B \cdot C = (A \cdot B) \cdot C = A \cdot (B \cdot C) = (A \cdot C) \cdot B$	$A + B + C = (A + B) + C = A + (B + C) = (A + C) + B$
Distributiva	$A \cdot (B + C) = AB + AC$	$A + BC = (A + B) \cdot (A + C)$



Teoremi	diretto	duale
Idempotenza	$A \cdot A \cdot A = A$	$A + A + A = A$
Assorbimento	$A + A \cdot B = A$	$A \cdot (A + B) = A$
De Morgan	$\overline{A \cdot B} = \overline{A} + \overline{B}$	$\overline{A + B} = \overline{A} \cdot \overline{B}$

A B	A·B	A+A·B
0 0	0	0
0 1	0	0
1 0	0	1
1 1	1	1

$A + AB = A$

$A(1+B) = A \cdot 1 = A$

A B	A+B	A·(A+B)
0 0	0	0
0 1	1	0
1 0	1	1
1 1	1	1