

ALGEBRA BOOLEANA

1/7

MACCHINA



COSTANTI:

⁰
FALSE
(F)

¹
TRUE
(V)

OPERATORI:

+ (OR)

* (AND)

! (NOT)

CONDIZIONI

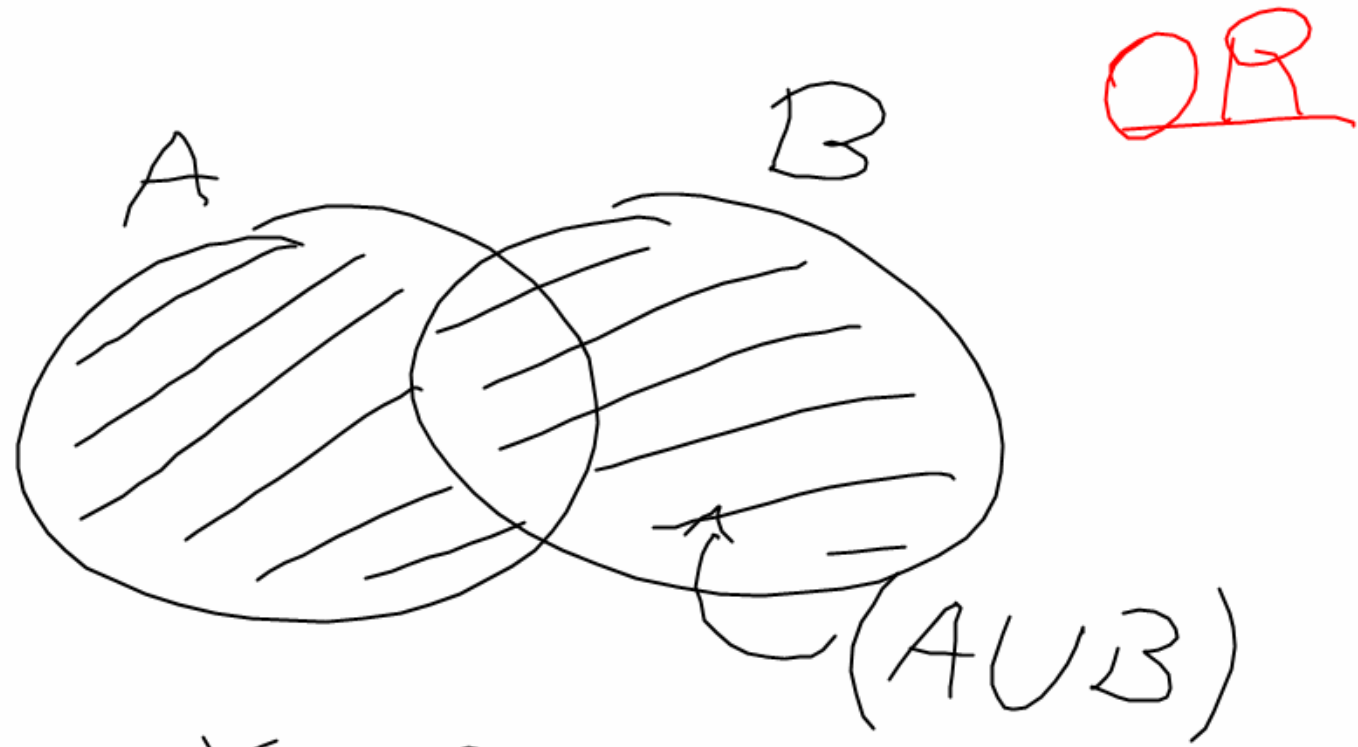
2/7

SE $x = 5$

$x > 3 \longrightarrow \text{VERO (V, T)}$

SE ~~x~~ $= 3$

$x > 3 \longrightarrow \text{FALSO (F, F)}$



(UNIONE, +)

TAVOLA DI VERITÀ

| a | b | a OR b |
|---|---|--------|
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 1 |

$$(x = 2 \vee x \% 2 == 0) \text{ OR } (x > 0)$$

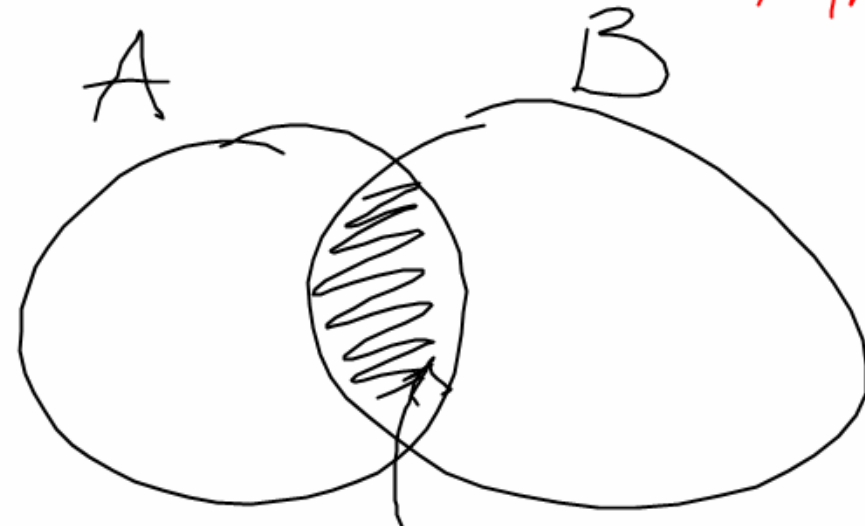
$$x = 3$$

$$\begin{array}{c} \text{Y} \\ 0 \end{array}$$

$$\begin{array}{c} \text{Y} \\ \text{Y} \end{array}$$



AND (INTERSEZIONE, *)



$A \cap B$

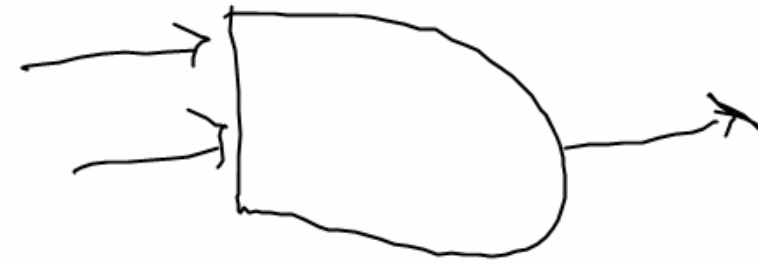
$$x = 3$$

$$(x \% 2 == 0)$$

AND $(x > 0)$

TAVOLE DI VERITÀ

| a | b | $a \text{ AND } b$ |
|---|---|--------------------|
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

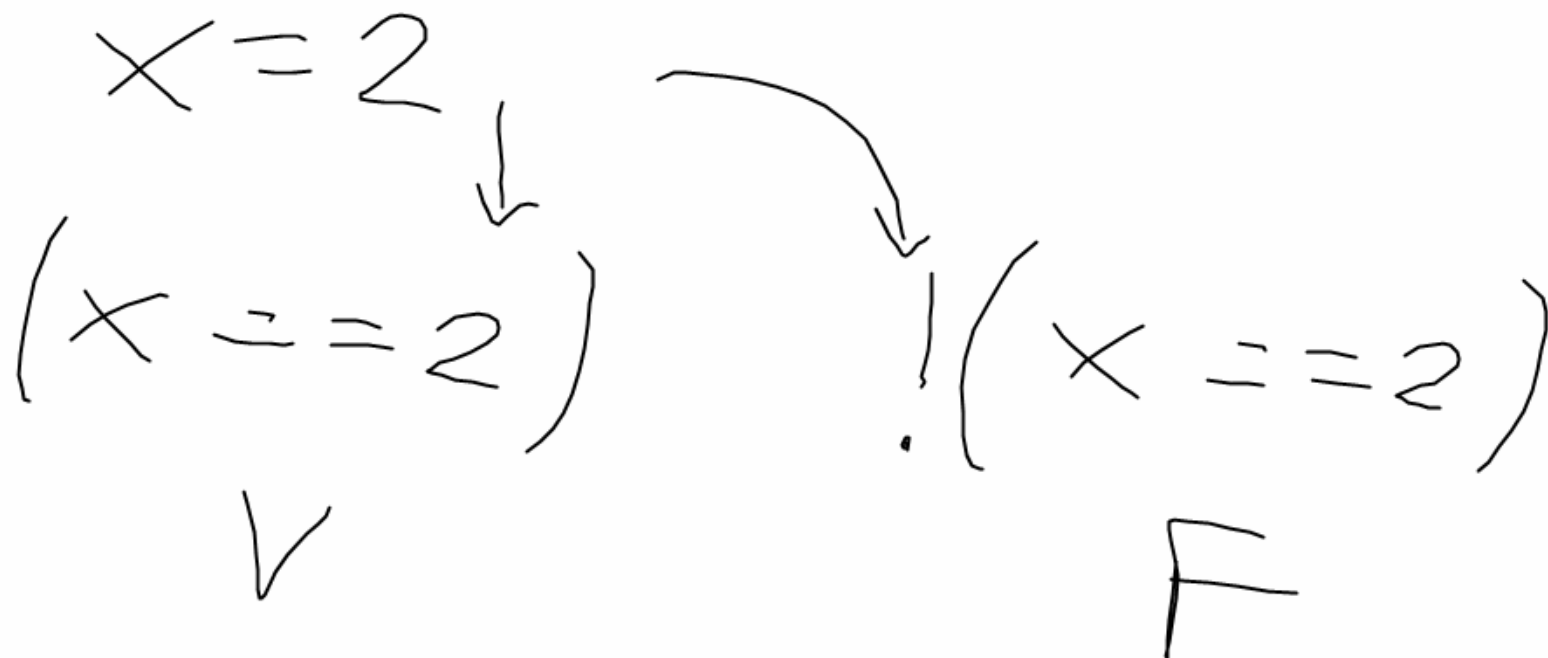


NOT (NEGAZIONE, !)

TAVOLA DI VERITÀ

5/7

| Q | NOT Q |
|---|-------|
| 0 | 1 |
| 1 | 0 |



$(x > 3)$



ANNO BKESTILE

$$\text{VAR.} = \underline{\text{ANNO}}$$

PRIORITA'

NOT \Rightarrow AND - OR
 1^{a} 2^{a} 3^{a}

$$\left(\underset{1}{\text{ANNO} \% 400 == 0} \text{ OR } \left(\underset{1}{\text{ANNO} \% 4 == 0} \wedge \underset{0}{\text{NOT}(\text{ANNO} \% 100 == 0)} \right) \right)$$

$$3 + 2 + 5$$

$$ES = 1200 \quad \checkmark$$

$$ES = 2043$$

$$ES = 1928$$

AND \longrightarrow $\overset{C}{\&\&}$

OR \longrightarrow $||$

NOT \longrightarrow $! =$

! (AND 0%100==0)