

TEOREMI DELL' ALGEBRA DI BOOLE

Fig. 34 Proprietà commutativa

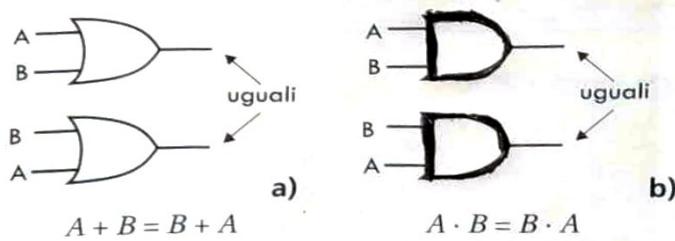


Fig. 36 Proprietà distributiva

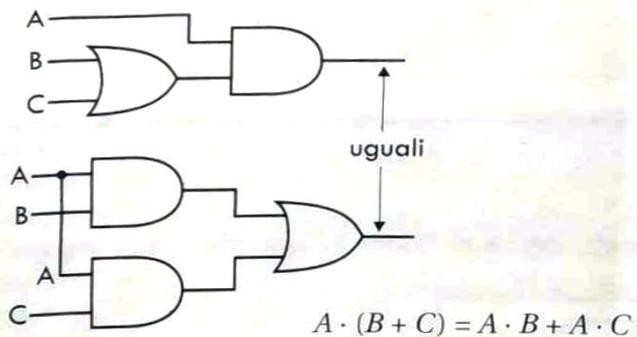


Fig. 37 Teorema della doppia negazione

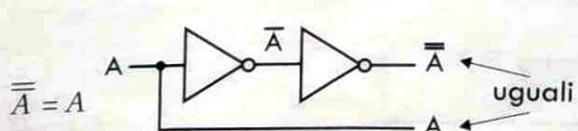


Fig. 39 Teorema di identità

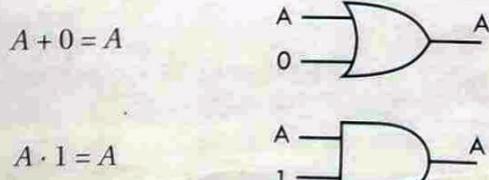


Fig. 35 Proprietà associativa

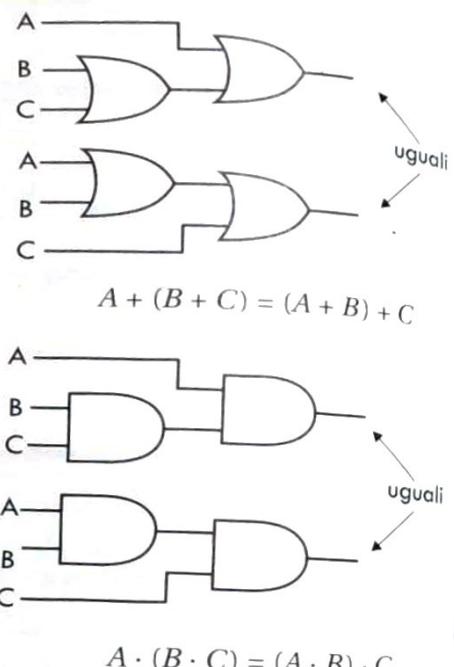


Fig. 38 Teorema dell'annullamento

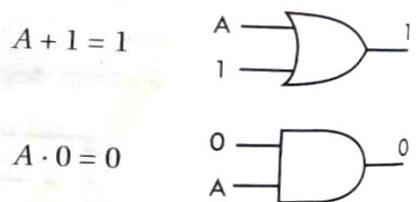


Fig. 40 Teorema dei complementi

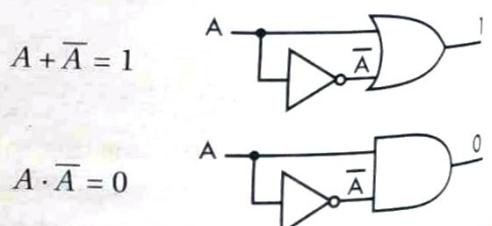


Fig. 41 Teorema di idempotenza

$$A + A = A$$

$$A \cdot A = A$$

Fig. 42 1° teorema dell'assorbimento

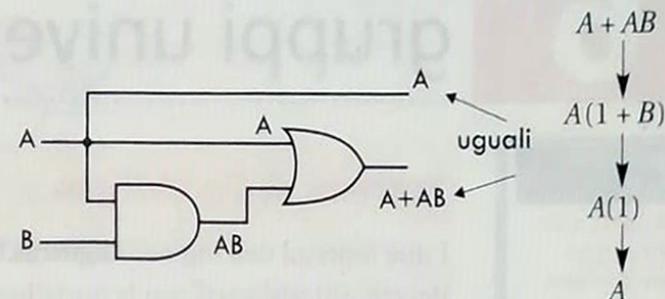
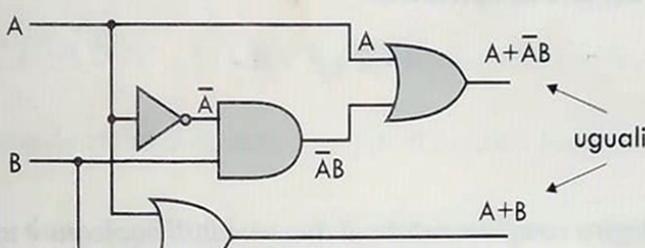


Fig. 43 2° teorema dell'assorbimento



$$\begin{aligned} A + \overline{A}B &\downarrow \\ A + AB = A & \\ A + AB + \overline{A}B &\downarrow \\ A + B(A + \overline{A}) &\downarrow \\ A + \overline{A} = 1 & \\ A + B(1) &\downarrow \\ B \cdot 1 = B & \\ A + B & \end{aligned}$$

Esercizi da svolgere

1. Scrivi l'espressione logica equivalente a $Y = A + AB$.
2. Calcola il prodotto logico $(A + B) \cdot (A + C)$.