$$\mathbb{P}[\Omega]=1 \qquad \mathbb{P}[\varnothing]=0$$

$$\mathbb{P}[A^c]=1-\mathbb{P}[A]$$

$$\mathbb{P}[A\cup B]=\mathbb{P}[A]+\mathbb{P}[B]-\mathbb{P}[A\cap B]$$

$$\mathbb{P}[A\cup B\cup C]=\mathbb{P}[A]+\mathbb{P}[B]+\mathbb{P}[C]-\mathbb{P}[A\cap B]-\mathbb{P}[A\cap C]-\mathbb{P}[B\cap C]+\mathbb{P}[A\cap B\cap C]$$

Eventi incompatibili: $A\cap B=\varnothing \quad \Rightarrow \quad \mathbb{P}[A\cap B]=0$

Eventi indipendenti: $\mathbb{P}[A\mid B]=\mathbb{P}[A]$ oppure $\mathbb{P}[A\cap B]=\mathbb{P}[A]\mathbb{P}[B]$

Probabilità totali: $\mathbb{P}[A]=\sum_j \mathbb{P}[A\mid B_j]\mathbb{P}[B_j]$

Probabilità condizionata: $\mathbb{P}[A\mid B]=\dfrac{\mathbb{P}[A\cap B]}{\mathbb{P}[B]}$

Bayes: $\mathbb{P}[B_k\mid A]=\dfrac{\mathbb{P}[A\mid B_k]\mathbb{P}[B_k]}{\sum_{j\in\mathbb{N}}\mathbb{P}[A\mid B_j]\mathbb{P}[B_j]}$

↳ SE $P[A]$ È NOTA : $\mathbb{P}[B_k\mid A]=\dfrac{\mathbb{P}[A\mid B_k]\mathbb{P}[B_k]}{\mathbb{P}[A]}$