Conditional probability

- Let $A, B \subseteq \Omega$ with $\mathbb{P}(B) > 0$. Then

$$\mathbb{P}(A|B) = \frac{\mathbb{P}(A \cap B)}{\mathbb{P}(B)}.$$

- This is the **conditional probability of A given B**.
- If $\mathbb{P}(B) = 0$ we leave the conditional probability undefined.