event
A set of outcomes with a probability assigned to them. In each trial, an event does happen or does not happen (→ Bernoulli trial). For example, rolling a die has the sample space \( S = \{1, 2, 3, 4, 5, 6\} \), so, for instance, the event \( X = 3 \) of rolling a 3 has the probability \( P(X = 3) = \frac{1}{6} \) assigned to it, because the probability for each outcome to occur is \( \frac{1}{6} \). The probability assigned to the event of rolling an odd number would be \( P(X \in \{1, 3, 5\}) = \frac{3}{6} \).

The probability assigned to the event of a die having a weight between 10 and 20 grams would be \( P(10 \leq X \leq 20) \), but an experiment would need to be conducted in order to find out what the actual probability is.