What is Probability?

The branch of mathematics that measures the uncertainty of the occurrence of an event using numbers is called probability. The chance that an event will or will not occur is expressed on a scale ranging from 0-1.  
It can also be represented as a percentage, where 0% denotes an impossible event and 100 % implies a certain event.

Event and outcome

An **Outcome** is a result of a random experiment. For example, when we roll a dice getting six is an outcome.  
An **Event**is a set of outcomes. For example when we roll dice the probability of getting a number less than five is an event.  
Note: An Event can have a single outcome.

Experimental Probability

Experimental probability can be applied to any event associated with an experiment that is repeated a large number of times.  
A trial is when the experiment is performed once. It is also known as **empirical probability**.  
Experimental or empirical probability: P(E) =Number of trials  where the event occurred/Total Number of Trials

Theoretical Probability

Theoretical Probability, P(E) = Number of Outcomes Favourable to E / Number of all possible outcomes of the experiment