



What is ... probability in statistics?

Peter Carr, Risk Assessment Professional who uses statistics

Oct 30 2017

<https://www.quora.com/What-is-the-difference-between-frequency-and-probability-in-statistics>

The definition of probability used by nearly all mathematicians and statisticians is the following:

"Probability P is a number $P(E)$ associated with an event E (e.g., an outcome of an experiment) which satisfies certain axiomatic properties."

Therefore, probability, which is represented as P , is a number between 0.000 and 1.000 that indicates the likelihood of an event, which is represented as (E) .

An event that cannot ever possibly occur is represented as $P(E) = 0.000$, which means that the Probability of the Event occurring is zero (0%).

An event that is absolutely, 100%, indisputably likely to occur is represented as $P(E) = 1.000$, which means that the Probability of the Event occurring is 100%.

An event that is just as likely to occur as to not occur is represented as $P(E) = 0.500$, which means that the Probability of the Event occurring is 50%.

NOTE: This article has been modified.