

Section 1.2. Interpretations of Probability

Note. We describe three interpretations of probability.

The Frequency Interpretation of Probability. The idea is that the probability of a specific outcome of an experiment is the relative frequency that the outcome occurs if the experiment is repeated a large number of times “under similar conditions.”

The Classical Interpretation of Probability. This is based on the idea of equally likely outcomes of an experiment. Difficulties with this approach include the fact that “likely” is part of what we are trying to define, and this interpretation does not deal with non-likely outcomes.

The Subjective Interpretation of Probability. This is also called the personal interpretation. The probability of a possible outcome is based on the personal judgment of the likelihood of that outcome.

Note. After the introduction of some vocabulary and set theory, we will set up some axioms and definitions for probability in Section 1.5, “The Definition of Probability.”

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