

# PROBABILITY

## INTRODUCTION OF PROBABILITY

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Certain events are characterized by a definite outcome, while others are guaranteed not to occur. Some events fall between these extremes in terms of their potential outcomes. Roughly speaking, the term "probability" serves as a measure of the likelihood of an event occurring or not occurring. In this context, the terms "probability" and "chance" are interchangeable.

In the traditional sense, probability is a ratio representing the 'number of favorable outcomes' to the 'total number of outcomes.' This ratio is a positive fraction ranging from zero, indicating certainty that the event will not happen, to one, signifying certainty that the event will occur.

For example, the probability of drawing a white ball from a bag containing only black balls is zero, while the probability of drawing a black ball is one.