

12.3 Introduction to Probability

VOCABULARY

Probability A number between 0 and 1 that indicates the likelihood an event will occur

Experimental probability A calculation of the probability of an event based on performing an experiment, conducting a survey, or looking at the history of an event

Geometric probability A type of probability found by calculating a ratio of two lengths, areas, or volumes

THE THEORETICAL PROBABILITY OF AN EVENT

When all outcomes are equally likely, the **theoretical probability** that an event A will occur is:

$$P(A) = \frac{\text{number of outcomes in } A}{\text{total number of outcomes}}$$



The theoretical probability of an event is often simply called the probability of an event.