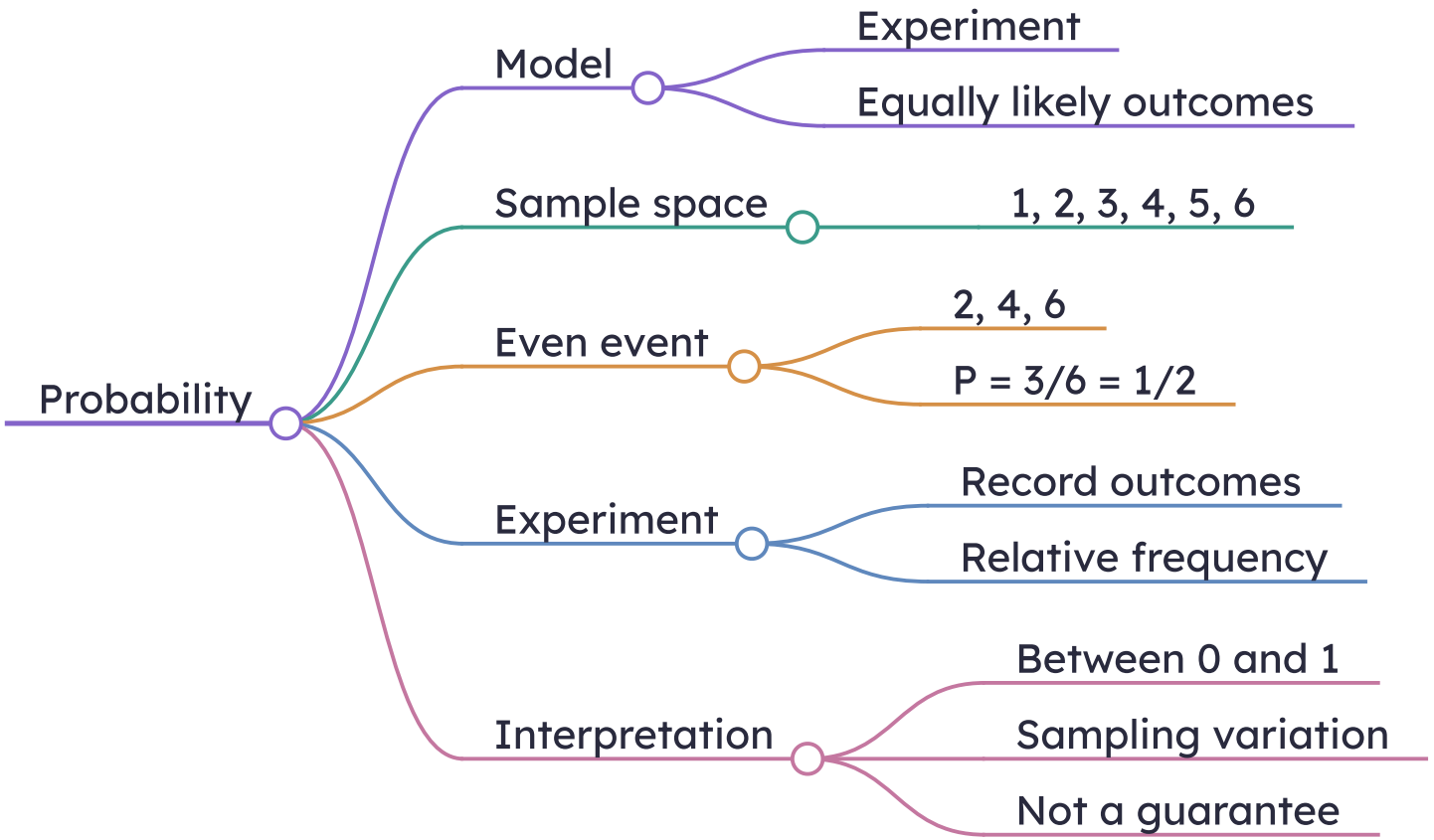
Probability

Define outcomes and assumptions before calculating a chance.



Read one branch at a time. Then cover the details and explain them in your own words.

Understand the topic

For equally likely outcomes, an event's probability is the number of favorable outcomes divided by the total number. Probabilities range from 0 to 1. Experimental relative frequencies can differ from theoretical probabilities, especially in small samples. State assumptions such as a fair die before applying the model.

How the map is organized

Separate the model, sample space, event, observations, and interpretation.

> **Watch out for this**
> A probability of one half does not require alternating results or exact halves in every small sample.

Try it yourself

Find the probability of an even result on a fair six-sided die. Roll it several times and explain why the observed proportion need not be exactly one half.

Two questions to answer

What is the probability of an even result?

Three of six equally likely outcomes are even.

Must four rolls include two even results?

The model describes chance, not a guaranteed sequence.

Sources

openstax.org
https://openstax.org/books/introductory-statistics-2e/pages/3-1-terminology

Original practice material compiled by Studera.ai. Explore at studera.ai/en/resources/mind-map-examples.