Wrap-Up (Conditional Probability and Independence)

This section introduced you to the fundamental concept of ***conditional probability***—the probability of an event given that another event has occurred. We saw that sometimes the knowledge that another event has occurred has no impact on the probability (when the two events are ***independent***), and sometimes it does (when the two events are not independent).

We further discussed the idea of independence and discussed different ways to check whether two events are independent or not. Understanding the concept of conditional probability also allowed us to introduce our final probability rule, the ***General Multiplication Rule***. The General Multiplication Rule tells us how to find P(A and B) when A and B are not necessarily independent.

We finished this section by introducing ***probability trees***, visual displays of events that happen in sequence and that involve conditional probability, and used some examples to show how trees can be useful in solving practical probability problems.