













Chapter 8 Summary

Section Objectives

How does it apply to you?

Section 1	Use probability to describe the likelihood of an event.		Probabilities are numbers between 0 and 1, including 0 and 1. An event with a probability of 0 is impossible. An event with a probability of 1 is certain. <i>(See Examples 1 and 2.)</i>
	Analyze the likelihood of a risk.		You can assess the risk involved in a given situation. <i>(See Examples 3 and 4.)</i>
	Use likelihood to describe actuarial data.		Actuaries use probabilities to calculate the costs of risks. <i>(See Examples 5 and 6.)</i>
Section 2	Find a theoretical probability.		You can find the probability of an event in cases where all possible outcomes of an event are known and can be counted. <i>(See Examples 1 and 2.)</i>
	Find an experimental probability.		You can find the probability of an event in cases where a representative sample can be taken and counted. <i>(See Examples 3 and 4.)</i>
	Estimate a probability using historical results.		You can find the probability of an event in cases where past occurrences are assumed to be representative of future occurrences. <i>(See Examples 5 and 6.)</i>
Section 3	Find an expected value involving two events.		You can determine the long-run average of an experiment. <i>(See Examples 1 and 2.)</i>
	Find an expected value involving multiple events.		You can extend the concept of expected value to situations in which there are more than two events. <i>(See Examples 3 and 4.)</i>
	Use expected value to make investment decisions.		You can use expected value to compare different investments. <i>(See Examples 5 and 6.)</i>
Section 4	Find the probability of independent events.		You can find the probability that two events occur when the occurrence of one does not affect the occurrence of the other. <i>(See Examples 1 and 2.)</i>
	Find the probability that an event does not occur.		If you know the probability that an event occurs, then you can calculate the probability that the event does not occur. <i>(See Examples 3 and 4.)</i>
	Find counterintuitive probabilities.		You can solve problems in which the probability of an event is counterintuitive. <i>(See Examples 5 and 6.)</i>