

# Probability Distributions

Specific Expectations	Section
Identify examples of discrete random variables.	7.1
Construct a discrete probability distribution function by calculating the probabilities of a discrete random variable.	7.1
Calculate expected values and interpret them within applications as averages over a large number of trials.	7.1, 7.2, 7.3, 7.4
Determine probabilities, using the binomial distribution.	7.2
Interpret probability statements, including statements about odds, from a variety of sources.	7.1, 7.2, 7.3, 7.4
Identify the advantages of using simulations in contexts.	7.1, 7.2, 7.3, 7.4
Design and carry out simulations to estimate probabilities in situations for which the calculation of the theoretical probabilities is difficult or impossible.	7.1, 7.2, 7.3, 7.4
Assess the validity of some simulation results by comparing them with the theoretical probabilities, using the probability concepts developed in the course.	7.1, 7.2, 7.3, 7.4