

CHAPTER 6: Continuous Probability Distributions

Learning Objectives

After reading this chapter and doing the exercises, you should be able to:

1. Understand the difference between how probabilities are computed for discrete and continuous random variables.
2. Know how to compute probability values for a continuous uniform probability distribution and be able to compute the expected value and variance for such a distribution.
3. Be able to compute probabilities using a normal probability distribution. Understand the role of the standard normal distribution in this process.
4. Be able to use the normal distribution to approximate binomial probabilities.
5. Be able to compute probabilities using an exponential probability distribution.
6. Understand the relationship between the Poisson and exponential probability distributions.