

TABLE OF CONTENTS

Licensing

1: What is Probability?

- 1.1: Sample Spaces and Events
- 1.2: Probability Measures
- 1.3: Equally Likely Outcomes and Counting Techniques (Combinatorics)

2: Conditional Probability

- 2.1: Conditional Probability and Bayes' Rule
- 2.2: Independent Events

3: Discrete Random Variables

- 3.1: Introduction to Random Variables
- 3.2: Probability Mass Functions (PMFs) and Cumulative Distribution Functions (CDFs) for Discrete Random Variables
- 3.3: Bernoulli and Binomial Distributions
- 3.4: Expected Value of Discrete Random Variables
- 3.5: Variance of Discrete Random Variables

4: Continuous Random Variables

- 4.1: Probability Density Functions (PDFs) and Cumulative Distribution Functions (CDFs) for Continuous Random Variables
- 4.2: Expected Value and Variance of Continuous Random Variables
- 4.3: Uniform Distributions
- 4.4: Normal Distributions

5: Multivariate Random Variables

- 5.1: Joint Distributions of Discrete Random Variables
- 5.2: Joint Distributions of Continuous Random Variables

6: The Sample Mean and Central Limit Theorem

- 6.1: Functions of Normal Random Variables
- 6.2: Sample Mean

7: The Sample Variance and Other Distributions

- 7.1: Other Useful Distributions
- 7.2: Sample Variance

Index

Glossary

Detailed Licensing