

TABLE OF CONTENTS

Licensing

1: Sampling and Data

- 1.1: Introduction to Sampling and Data
- 1.2: Definitions of Statistics, Probability, and Key Terms
- 1.3: Data, Sampling, and Variation in Data and Sampling
- 1.4: Experimental Design and Ethics
- 1.5: Sampling Experiment (Worksheet)
- 1.6: Chapter Key Terms
- 1.7: Chapter References
- 1.H: Sampling and Data (Homework)
- 1.S: Sampling and Data (Solutions)

2: Descriptive Statistics

- 2.1: Introduction to Descriptive Statistics
- 2.2: Display Data
- 2.3: Measures of the Location of the Data
- 2.4: Measures of the Center of the Data
- 2.5: Sigma Notation and Calculating the Arithmetic Mean
- 2.6: Geometric Mean
- 2.7: Skewness and the Mean, Median, and Mode
- 2.8: Measures of the Spread of the Data
- 2.9: Descriptive Statistics (Worksheet)
- 2.10: Chapter Key Terms
- 2.H: Descriptive Statistics (Homework)
 - 1.1: Homework
- 2.S: Descriptive Statistics (Solutions)

3: Probability Topics

- 3.1: Introduction to Probability
- 3.2: Probability Terminology
- 3.3: Two Basic Rules of Probability
- 3.4: Contingency Tables and Probability Trees
- 3.5: Venn Diagrams
- 3.6: Conditional Probability and Bayes' Rule
- 3.7: Independent Events
- 3.8: Discrete Distribution Experiment (Worksheet)
- 3.9: Chapter Reference
- 3.10: Chapter Key Terms
- 3.H: Probability (Homework)
 - 1.1: Chapter Practice
 - 1.2: Chapter More Practice
- 3.S: Probability (Solutions- Practice + Homework)

4: Random Variables

- 4.1: Introduction to Discrete Random Variables
- 4.2: Binomial Distribution
- 4.3: Poisson Distribution
- 4.4: Expected Value of Discrete Random Variables
 - 4.4.1: Variance of Discrete Random Variables
- 4.5: Introduction to Continuous Random Variables
 - 4.5.1: Properties of Continuous Probability Density Functions
- 4.6: The Uniform Distribution
- 4.7: The Exponential Distribution
- 4.8: Introduction to Normal Distribution
 - 4.8.1: The Standard Normal Distribution
 - 4.8.2: Using the Normal Distribution
- 4.9: Normal Distribution - Pinkie Length (Worksheet)
- 4.10: Chapter Key Items
 - 4.10.1: Chapter Key Terms
 - 4.10.2: Chapter Key Items
- 4.11: Chapter Review
- 4.12: Chapter References
 - 4.12.1: Chapter References
 - 4.12.2: Chapter References
- 4.H: Random Variables (Homework)
 - 1.1: Discrete RVs Practice
 - 1.2: Uniform and Exponential Homework
 - 1.3: Uniform and Exponential Practice
 - 1.4: Normal Homework
 - 1.5: Normal Practice
- 4.S: Random Variables (Solutions- Practice + Homework)
 - 1.1: Uniform + Exponential Solution (Practice + Homework)
 - 1.2: Normal Solution (Practice + Homework)

5: Point Estimates

- 5.1: Introduction to the Central Limit Theorem
- 5.2: The Central Limit Theorem for Sample Means
- 5.3: Using the Central Limit Theorem
- 5.4: The Central Limit Theorem for Proportions
- 5.5: Finite Population Correction Factor
- 5.6: Central Limit Theorem (Worksheet)
- 5.7: Chapter Key Terms
- 5.8: Chapter References
- 5.9: Chapter Formula Review
- 5.10: Chapter Review
- 5.H: Point Estimates (Homework + Practice)
 - 1.1: Chapter Practice
- 5.S: Point Estimates (Solutions- Practice + Homework)

6: Interval Estimates

- 6.1: Introduction to Confidence Intervals
- 6.2: A Confidence Interval for a Population Mean- Standard Deviation Known or Large Sample Size
- 6.3: A Confidence Interval for a Population Mean- Standard Deviation Unknown, Small Sample Case
- 6.4: A Confidence Interval for A Population Proportion
- 6.5: Calculating the Sample Size n- Continuous and Binary Random Variables
- 6.6: Confidence Intervals - Inflation Rates (Worksheet)
- 6.7: Chapter Key Terms
- 6.8: Chapter References
- 6.9: Chapter Formula Review
- 6.10: Chapter Review
- 6.H: Interval Estimates (Homework + Practice)
 - 1.1: Chapter Practice
- 6.S: Interval Estimates (Solutions- Practice + Homework)

7: Hypothesis Testing

- 7.1: Introduction to Hypothesis Testing
- 7.2: Null and Alternative Hypotheses
- 7.3: Outcomes and the Type I and Type II Errors
- 7.4: One-Sample Test
- 7.5: Full Hypothesis Test Examples
- 7.6: Introduction to Two-Sample Tests
- 7.7: Comparing Two Independent Population Means
- 7.8: Cohen's Standards for Small, Medium, and Large Effect Sizes
- 7.9: Test for Differences in Means- Assuming Equal Population Variances
- 7.10: Comparing Two Independent Population Proportions
- 7.11: Two Population Means with Known Standard Deviations
- 7.12: Matched or Paired Samples
- 7.13: Prelude to the Chi-Square Distribution
- 7.14: Facts About the Chi-Square Distribution
- 7.15: Goodness-of-Fit Test
- 7.16: Test of Independence
- 7.17: Chapter Key Terms
 - 7.17.1: Chapter Key Terms
 - 7.17.2: Chapter Key Terms
- 7.18: Chapter References
 - 7.18.1: Chapter References
 - 7.18.2: Chapter References
- 7.19: Chapter Formula Review
- 7.20: Chapter Review
- 7.H: Hypothesis Testing (Homework + Practice)
 - 1.1: One-Sample Practice
 - 1.2: Two-Sample Homework
 - 1.3: Two-Sample Practice
 - 1.4: Chi-Square Tests Homework
 - 1.5: Chi-Square Practice
- 7.S: Hypothesis Testing (Solutions- Practice + Homework)
 - 1.1: Two-Sample (Solutions- Practice + Homework)
 - 1.2: Chi-square (Solutions- Practice + Homework)

8: Linear Regression and Correlation

- [8.1: Introduction to Linear Regression and Correlation](#)
- [8.2: The Correlation Coefficient \$r\$](#)
- [8.3: Testing the Significance of the Correlation Coefficient](#)
- [8.4: Linear Equations](#)
- [8.5: The Regression Equation](#)
- [8.6: Interpretation of Regression Coefficients- Elasticity and Logarithmic Transformation](#)
- [8.7: Predicting with a Regression Equation](#)
- [8.8: Chapter Key Terms](#)
- [8.9: Linear Regression - Income and Assets \(Worksheet\)](#)
- [8.H: Regression \(Homework\)](#)
- [8.S: Regression \(Solution\)](#)

9: Appendices

- [9.1: B | Mathematical Phrases, Symbols, and Formulas](#)
- [9.2: A | Statistical Tables](#)

[Index](#)

[Glossary](#)

[Detailed Licensing](#)

[Detailed Licensing](#)