

Math 115 (Statistics) List of Concepts for Final Exam

- 1 Definition of Statistics
- 1 Types of Data
- 1 Samples versus Populations
- 1 Sampling Techniques
- 1 Experimental versus Observational Studies
- 1 Construction of Frequency Polygons
- 2 Construction of Frequency Distributions
- 1 Construction of Ogives
- 1 Construction of Pie Graphs
- 3 Calculating Mean, Median, and Mode
- 1 Calculating Interquartile Range
- 1 Chebyshev's Theorem
- 1 Types of Probability
- 2 Calculating the Probability of an Event
- 1 Calculating Size of a Sample Space using the Fundamental Counting Rule
- 1 Properties of a Discrete Probability Distribution
- 1 Calculating the Variance of a Discrete Probability Distribution
- 1 Calculating Expected Value
- 1 Calculating the Mean and Variance of a Binomial Distribution
- 1 Application of a Binomial Distribution
- 1 Properties of the Normal Distribution
- 2 Area under the Standard Normal Curve between z-values
- 1 Calculating the Probability of a Single Observation using the Standard Normal Distribution
- 1 Calculating the Probability of a Sample Mean using the Standard Normal Distribution
- 1 Confidence Intervals when the Population Std. Dev. is Known
- 1 Confidence Intervals when the Population Std. Dev. is Unknown
- 1 Confidence Intervals for Proportions
- 1 Sample Size for Proportions
- 1 Sample Size (non-proportions)
- 2 Hypothesis Testing for Mean when the Pop. Std. Dev. is Known
- 2 Hypothesis Testing for Mean when the Pop. Std. Dev. is Unknown
- 1 Hypothesis Testing for Proportions
- 1 Testing the Difference Between Two Means from Independent Samples
- 1 Testing the Difference Between Two Means when the Pop. Std. Dev. is Known
- 2 Testing the Difference Between Proportions
- 1 Interpretation of a Correlation Coefficient
- 1 Testing the Difference of Two Means from Dependent Samples
- 1 Properties of a Goodness-of-Fit Test
- 1 Calculating the Degrees of Freedom of a Contingency Table
- 1 Calculating a Correlation Coefficient
- 1 Calculating a Regression Equation
- 1 Using a Regression Equation to Predict a Value of the Dependent Variable