

Index

A

Adding probabilities

[3.3: Two Basic Rules of Probability](#)

ANOVA

[13.1: One-Way ANOVA](#)

B

bar graph

[2.1: Stem-and-Leaf Graphs \(Stemplots\), Line Graphs, and Bar Graphs](#)

Bernoulli trial

[4.3: Binomial Distribution](#)

[4.4: Geometric Distribution](#)

binomial probability distribution

[4.3: Binomial Distribution](#)

[8.3: A Population Proportion](#)

blinding

[1.4: Experimental Design and Ethics](#)

box plots

[2.4: Box Plots](#)

C

central limit theorem

[7.3: Using the Central Limit Theorem](#)

central limit theorem for sums

[7.2.1: The Central Limit Theorem for Sums](#)

cluster sampling

[1.2: Data, Sampling, and Variation in Data and Sampling](#)

coefficient of determination

[12.3: The Regression Equation](#)

Cohen's Standards

[10.1: Two Population Means with Unknown Standard Deviations](#)

combination

[3.6: Permutations and Combinations](#)

Comparing two population means

[10.2: Two Population Means with Known Standard Deviations](#)

Comparing Two Population Proportions

[10.3: Comparing Two Independent Population Proportions](#)

complement

[3.1: Terminology](#)

[3.2: Independent and Mutually Exclusive Events](#)

conditional probability

[3.1: Terminology](#)

Confidence Interval

[9.0: Prelude to Hypothesis Testing](#)

contingency table

[3.4: Contingency Tables](#)

[11.3: Test of Independence](#)

continuous data

[1.2: Data, Sampling, and Variation in Data and Sampling](#)

continuous distributions

[5.4: Continuous Distribution \(Worksheet\)](#)

control group

[1.4: Experimental Design and Ethics](#)

cumulative probability distributions

[5.0: Introduction](#)

cumulative relative frequency

[1.3: Frequency, Frequency Tables, and Levels of Measurement](#)

D

decay parameter

[5.3: The Exponential Distribution](#)

Decision

[9.4: Rare Events, the Sample, Decision and Conclusion](#)

degrees of freedom

[10.1: Two Population Means with Unknown Standard Deviations](#)

direction of a relationship between the variables

[12.2: Scatter Plots](#)

discrete data

[1.2: Data, Sampling, and Variation in Data and Sampling](#)

Distribution for the differences

[10.3: Comparing Two Independent Population Proportions](#)

E

Equal variance

[12.4: Testing the Significance of the Correlation Coefficient](#)

ethics

[1.4: Experimental Design and Ethics](#)

event

[3.1: Terminology](#)

expected value

[4.2: Mean or Expected Value and Standard Deviation](#)

experimental unit

[1.4: Experimental Design and Ethics](#)

explanatory variable

[1.4: Experimental Design and Ethics](#)

exponential distribution

[5.3: The Exponential Distribution](#)

extrapolation

[12.5: Prediction](#)

F

F distribution

[13.0: Prelude to F Distribution and One-Way ANOVA](#)

factorial

[3.6: Permutations and Combinations](#)

frequency

[1.3: Frequency, Frequency Tables, and Levels of Measurement](#)

Frequency Polygons

[2.2: Histograms, Frequency Polygons, and Time Series Graphs](#)

frequency table

[1.3: Frequency, Frequency Tables, and Levels of Measurement](#)

G

geometric distribution

[4.4: Geometric Distribution](#)

goodness of fit

[11.2: Goodness-of-Fit Test](#)

H

Histograms

[2.2: Histograms, Frequency Polygons, and Time Series Graphs](#)

homogeneity

[11.4: Test for Homogeneity](#)

Hypergeometric Distribution

[4.5: Hypergeometric Distribution](#)

hypothesis testing

[9.0: Prelude to Hypothesis Testing](#)

[9.1: Null and Alternative Hypotheses](#)

[9.3: Distribution Needed for Hypothesis Testing](#)

[9.5: Additional Information and Full Hypothesis Test Examples](#)

I

independent events

[3.2: Independent and Mutually Exclusive Events](#)

[3.3: Two Basic Rules of Probability](#)

[11.3: Test of Independence](#)

inferential statistics

[8.0: Prelude to Confidence Intervals](#)

Institutional Review Board

[1.4: Experimental Design and Ethics](#)

interpolation

[12.5: Prediction](#)

interval of interest

[4.6: Poisson Distribution](#)

L

Law of Large Numbers

[7.3: Using the Central Limit Theorem](#)

level of measurement

[1.3: Frequency, Frequency Tables, and Levels of Measurement](#)

line graph

[2.1: Stem-and-Leaf Graphs \(Stemplots\), Line Graphs, and Bar Graphs](#)

linear correlation coefficient

[12.3: The Regression Equation](#)

[12.4: Testing the Significance of the Correlation Coefficient](#)

linear equations

[12.1: Linear Equations](#)

LINEAR REGRESSION MODEL

[12.3: The Regression Equation](#)

lurking variable

[1.4: Experimental Design and Ethics](#)

M

margin of error

[8.1: A Single Population Mean using the Normal Distribution](#)

matched samples

[10.4: Matched or Paired Samples](#)

mean

[2.6: Skewness and the Mean, Median, and Mode](#)

[4.2: Mean or Expected Value and Standard Deviation](#)

mean for sums

[7.2.1: The Central Limit Theorem for Sums](#)

median

[2.3: Measures of the Location of the Data](#)

[2.5: Measures of the Center of the Data](#)

[2.6: Skewness and the Mean, Median, and Mode](#)

memoryless property

5.3: The Exponential Distribution

mode

2.5: Measures of the Center of the Data

2.6: Skewness and the Mean, Median, and Mode

Multiplying probabilities

3.3: Two Basic Rules of Probability

3.6: Permutations and Combinations

mutually exclusive

3.2: Independent and Mutually Exclusive Events

3.3: Two Basic Rules of Probability

N

Normal Approximation to the Binomial Distribution

7.3: Using the Central Limit Theorem

normal distribution

6.2: Using the Normal Distribution

6.3: Normal Distribution - Lap Times (Worksheet)

6.4: Normal Distribution - Pinkie Length (Worksheet)

7.1: The Central Limit Theorem for Sample Means (Averages)

O

orders

3.6: Permutations and Combinations

outcome

3.1: Terminology

outliers

2.3: Measures of the Location of the Data

12.6: Outliers

P

Paired Samples

10.4: Matched or Paired Samples

parameter

1.1: Definitions of Statistics, Probability, and Key Terms

Pareto chart

1.2: Data, Sampling, and Variation in Data and Sampling

permutation

3.6: Permutations and Combinations

placebo

1.4: Experimental Design and Ethics

Poisson distribution

4.6: Poisson Distribution

5.3: The Exponential Distribution

Pooled Proportion

10.3: Comparing Two Independent Population Proportions

pooled variance

13.2: The F Distribution and the F-Ratio

population

1.1: Definitions of Statistics, Probability, and Key Terms

population mean

2.5: Measures of the Center of the Data

Population Standard Deviation

2.7: Measures of the Spread of the Data

power of the test

9.2: Outcomes and the Type I and Type II Errors

9.5: Additional Information and Full Hypothesis Test Examples

prediction

12.5: Prediction

probability

1.1: Definitions of Statistics, Probability, and Key Terms

probability distribution function

4.1: Probability Distribution Function (PDF) for a Discrete Random Variable

6.2: Using the Normal Distribution

Q

Qualitative Data

1.2: Data, Sampling, and Variation in Data and Sampling

Quantitative Data

1.2: Data, Sampling, and Variation in Data and Sampling

quartiles

2.3: Measures of the Location of the Data

R

random assignment

1.4: Experimental Design and Ethics

rare events

9.4: Rare Events, the Sample, Decision and Conclusion

reliability

5.3: The Exponential Distribution

response variable

1.4: Experimental Design and Ethics

rounding

1.3: Frequency, Frequency Tables, and Levels of Measurement

S

sample mean

2.5: Measures of the Center of the Data

sample space

3.1: Terminology

sample Standard Deviation

2.7: Measures of the Spread of the Data

sampling

1: Sampling and Data

Sampling Bias

1.2: Data, Sampling, and Variation in Data and Sampling

sampling distribution of the mean

7.1: The Central Limit Theorem for Sample Means (Averages)

Sampling Error

1.2: Data, Sampling, and Variation in Data and Sampling

sampling with replacement

1.2: Data, Sampling, and Variation in Data and Sampling

3.2: Independent and Mutually Exclusive Events

3.5: Tree and Venn Diagrams

sampling without replacement

1.2: Data, Sampling, and Variation in Data and Sampling

3.2: Independent and Mutually Exclusive Events

3.5: Tree and Venn Diagrams

scatter plot

12.2: Scatter Plots

significance level

9.4: Rare Events, the Sample, Decision and Conclusion

Skewed

2.4: Box Plots

2.6: Skewness and the Mean, Median, and Mode

slope

12.1: Linear Equations

standard deviation

2.7: Measures of the Spread of the Data

4.2: Mean or Expected Value and Standard Deviation

Standard deviation for Sums

7.2.1: The Central Limit Theorem for Sums

standard error

10.1: Two Population Means with Unknown Standard Deviations

Standard Error of the Mean

7.1: The Central Limit Theorem for Sample Means (Averages)

standard normal distribution

6.0: Prelude to The Normal Distribution

6.1: The Standard Normal Distribution

statistic

1.1: Definitions of Statistics, Probability, and Key Terms

stemplot

2.1: Stem-and-Leaf Graphs (Stemplots), Line Graphs, and Bar Graphs

strength of a relationship between the variables

12.2: Scatter Plots

T

test for homogeneity

11.4: Test for Homogeneity

test statistic

10.4: Matched or Paired Samples

The alternative hypothesis

9.1: Null and Alternative Hypotheses

The AND Event

3.1: Terminology

the central limit theorem

7: The Central Limit Theorem

The null hypothesis

9.1: Null and Alternative Hypotheses

The Or Event

3.1: Terminology

The OR of Two Events

3.2: Independent and Mutually Exclusive Events

Time Series Graphs

2.2: Histograms, Frequency Polygons, and Time Series Graphs

treatments

1.4: Experimental Design and Ethics

tree diagram

3.5: Tree and Venn Diagrams

type I error

9.2: Outcomes and the Type I and Type II Errors

type II error

9.2: Outcomes and the Type I and Type II Errors

U

uniform distribution

5.2: The Uniform Distribution

V

variable

[1.1: Definitions of Statistics, Probability, and Key Terms](#)

variation due to error or unexplained variation

[13.2: The F Distribution and the F-Ratio](#)

variation due to treatment or explained variation

[13.2: The F Distribution and the F-Ratio](#)

Venn diagram

[3.5: Tree and Venn Diagrams](#)