

Index

1 - A

Adding probabilities

2.4: Two Basic Rules of Probability

ANOVA

7.9: One-Way ANOVA

2 - B

bar graph

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

Bernoulli trial

3.4: Binomial Distribution
3.5: Geometric Distribution

binomial probability distribution

3.4: Binomial Distribution
5.4: A Population Proportion

blinding

1.5: Experimental Design and Ethics

box plots

1.9: Box Plots

3 - C

central limit theorem

4.8: Using the Central Limit Theorem

central limit theorem for sums

4.7: The Central Limit Theorem for Sums

cluster sampling

1.3: Data, Sampling, and Variation in Data and Sampling

coefficient of determination

8.4: The Regression Equation

Cohen's Standards

6.8: Two Population Means with Unknown Standard Deviations

Comparing two population means

6.9: Two Population Means with Known Standard Deviations

Comparing Two Population Proportions

6.10: Comparing Two Independent Population Proportions

complement

2.2: Terminology
2.3: Independent and Mutually Exclusive Events

conditional probability

2.2: Terminology

Confidence Interval

6.1: Prelude to Hypothesis Testing

contingency table

2.5: Contingency Tables
7.4: Test of Independence

continuous data

1.3: Data, Sampling, and Variation in Data and Sampling

control group

1.5: Experimental Design and Ethics

cumulative relative frequency

1.4: Frequency, Frequency Tables, and Levels of Measurement

4 - D

Decision

6.5: Rare Events, the Sample, Decision and Conclusion

degrees of freedom

6.8: Two Population Means with Unknown Standard Deviations

direction of a relationship between the variables

8.3: Scatter Plots

discrete data

1.3: Data, Sampling, and Variation in Data and Sampling

Distribution for the differences

6.10: Comparing Two Independent Population Proportions

5 - E

Equal variance

8.5: Testing the Significance of the Correlation Coefficient

ethics

1.5: Experimental Design and Ethics

event

2.2: Terminology

expected value

3.3: Mean or Expected Value and Standard Deviation

experimental unit

1.5: Experimental Design and Ethics

explanatory variable

1.5: Experimental Design and Ethics

extrapolation

8.6: Prediction

6 - F

F distribution

7.8: Prelude to F Distribution and One-Way ANOVA

frequency

1.4: Frequency, Frequency Tables, and Levels of Measurement

Frequency Polygons

1.8: Histograms, Frequency Polygons, and Time Series Graphs

frequency table

1.4: Frequency, Frequency Tables, and Levels of Measurement

7 - G

geometric distribution

3.5: Geometric Distribution

goodness of fit

7.3: Goodness-of-Fit Test

8 - H

Histograms

1.8: Histograms, Frequency Polygons, and Time Series Graphs

homogeneity

7.5: Test for Homogeneity

hypothesis testing

6.1: Prelude to Hypothesis Testing
6.2: Null and Alternative Hypotheses
6.4: Distribution Needed for Hypothesis Testing
6.6: Additional Information and Full Hypothesis Test Examples

9 - I

independent events

2.3: Independent and Mutually Exclusive Events
2.4: Two Basic Rules of Probability
7.4: Test of Independence

inferential statistics

5.1: Prelude to Confidence Intervals

Institutional Review Board

1.5: Experimental Design and Ethics

interpolation

8.6: Prediction

interval of interest

3.6: Poisson Distribution

10 - L

Law of Large Numbers

4.8: Using the Central Limit Theorem

level of measurement

1.4: Frequency, Frequency Tables, and Levels of Measurement

line graph

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

linear correlation coefficient

8.4: The Regression Equation
8.5: Testing the Significance of the Correlation Coefficient

linear equations

8.2: Linear Equations

LINEAR REGRESSION MODEL

8.4: The Regression Equation

lurking variable

1.5: Experimental Design and Ethics

11 - M

margin of error

5.2: A Single Population Mean using the Normal Distribution

matched samples

6.11: Matched or Paired Samples

math

0: Notation and Symbols Used in Statistics

mean

1.13: Skewness and the Mean, Median, and Mode
3.3: Mean or Expected Value and Standard Deviation

mean for sums

4.7: The Central Limit Theorem for Sums

median

1.10: Measures of the Location of the Data
1.11: Measures of the Center of the Data
1.13: Skewness and the Mean, Median, and Mode

mode

1.11: Measures of the Center of the Data
1.13: Skewness and the Mean, Median, and Mode

Multiplying probabilities

2.4: Two Basic Rules of Probability

mutually exclusive

2.3: Independent and Mutually Exclusive Events
2.4: Two Basic Rules of Probability

12 - N

Normal Approximation to the Binomial Distribution

4.8: Using the Central Limit Theorem

normal distribution

4.3: Using the Normal Distribution
4.4: Normal Distribution - Lap Times (Worksheet)
4.6: The Central Limit Theorem for Sample Means (Averages)

13 - O

outcome

2.2: Terminology

outliers

1.10: Measures of the Location of the Data
8.7: Outliers

14 - P

Paired Samples

6.11: Matched or Paired Samples

parameter

1.2: Definitions of Statistics, Probability, and Key Terms

Pareto chart

1.3: Data, Sampling, and Variation in Data and Sampling

placebo

1.5: Experimental Design and Ethics

Poisson distribution

3.6: Poisson Distribution

Pooled Proportion

6.10: Comparing Two Independent Population Proportions

pooled variance

7.10: The F Distribution and the F-Ratio

population

1.2: Definitions of Statistics, Probability, and Key Terms

population mean

1.11: Measures of the Center of the Data

Population Standard Deviation

1.12: Measures of the Spread of the Data

power of the test

6.3: Outcomes and the Type I and Type II Errors
6.6: Additional Information and Full Hypothesis Test Examples

prediction

8.6: Prediction

probability

1.2: Definitions of Statistics, Probability, and Key Terms

probability distribution function

3.2: Probability Distribution Function (PDF) for a Discrete Random Variable
4.3: Using the Normal Distribution

15 - Q

Qualitative Data

1.3: Data, Sampling, and Variation in Data and Sampling

Quantitative Data

1.3: Data, Sampling, and Variation in Data and Sampling

quartiles

1.10: Measures of the Location of the Data

16 - R

random assignment

1.5: Experimental Design and Ethics

rare events

6.5: Rare Events, the Sample, Decision and Conclusion

response variable

1.5: Experimental Design and Ethics

rounding

1.4: Frequency, Frequency Tables, and Levels of Measurement

17 - S

sample mean

1.11: Measures of the Center of the Data

sample space

2.2: Terminology

sample Standard Deviation

1.12: Measures of the Spread of the Data

sampling

1: Sampling and Descriptive Statistics

Sampling Bias

1.3: Data, Sampling, and Variation in Data and Sampling

sampling distribution of the mean

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

Sampling Error

1.3: Data, Sampling, and Variation in Data and Sampling

sampling with replacement

1.3: Data, Sampling, and Variation in Data and Sampling
2.3: Independent and Mutually Exclusive Events
2.6: Tree and Venn Diagrams

sampling without replacement

1.3: Data, Sampling, and Variation in Data and Sampling
2.3: Independent and Mutually Exclusive Events
2.6: Tree and Venn Diagrams

scatter plot

8.3: Scatter Plots

significance level

6.5: Rare Events, the Sample, Decision and Conclusion

Skewed

1.9: Box Plots
1.13: Skewness and the Mean, Median, and Mode

slope

8.2: Linear Equations

standard deviation

1.12: Measures of the Spread of the Data
3.3: Mean or Expected Value and Standard Deviation

Standard deviation for Sums

4.7: The Central Limit Theorem for Sums

standard error

6.8: Two Population Means with Unknown Standard Deviations

Standard Error of the Mean

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

standard normal distribution

4.1: Prelude to The Normal Distribution
4.2: The Standard Normal Distribution

statistic

1.2: Definitions of Statistics, Probability, and Key Terms

statistics

0: Notation and Symbols Used in Statistics

stemplot

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

strength of a relationship between the variables

8.3: Scatter Plots

18 - T

test for homogeneity

7.5: Test for Homogeneity

test statistic

6.11: Matched or Paired Samples

The alternative hypothesis

6.2: Null and Alternative Hypotheses

The AND Event

2.2: Terminology

The null hypothesis

6.2: Null and Alternative Hypotheses

The Or Event

2.2: Terminology

The OR of Two Events

2.3: Independent and Mutually Exclusive Events

Time Series Graphs

1.8: Histograms, Frequency Polygons, and Time Series Graphs

treatments

1.5: Experimental Design and Ethics

tree diagram

2.6: Tree and Venn Diagrams

type I error

6.3: Outcomes and the Type I and Type II Errors

type II error

6.3: Outcomes and the Type I and Type II Errors

19 - V

variable

1.2: Definitions of Statistics, Probability, and Key Terms

variation due to error or unexplained variation

7.10: The F Distribution and the F-Ratio

variation due to treatment or explained variation

7.10: The F Distribution and the F-Ratio

Venn diagram

2.6: Tree and Venn Diagrams