

Index

A

alternative hypothesis

- 7.2: Null and Alternative Hypotheses
- 7.4: One-Sample Test

average

- 1.2: Definitions of Statistics, Probability, and Key Terms

B

bar graph

- 1.3: Data, Sampling, and Variation in Data and Sampling
- 2.2: Display Data

Bernoulli trial

- 4.2: Binomial Distribution

binomial distribution

- 6.4: A Confidence Interval for A Population Proportion
- 7.5: Full Hypothesis Test Examples

binomial probability distribution

- 4.2: Binomial Distribution

bivariate

- 8.2: The Correlation Coefficient r

blinding

- 1.4: Experimental Design and Ethics

C

categorical variables

- 1.2: Definitions of Statistics, Probability, and Key Terms

central limit theorem

- 5.1: Introduction to the Central Limit Theorem

coefficient of determination

- 8.5: The Regression Equation

coefficient of multiple determination

- 8.5: The Regression Equation

Cohen's d

- 7.8: Cohen's Standards for Small, Medium, and Large Effect Sizes

complement

- 3.2: Probability Terminology

conditional probability

- 3.2: Probability Terminology

Confidence Interval

- 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
- 8.7: Predicting with a Regression Equation

confidence intervals

- 6.4: A Confidence Interval for A Population Proportion
- 7.1: Introduction to Hypothesis Testing

Confidence Level

- 6.2: A Confidence Interval for a Population Mean-Standard Deviation Known or Large Sample Size

contingency table

- 3.4: Contingency Tables and Probability Trees
- 7.16: Test of Independence

continuous

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

control group

- 1.4: Experimental Design and Ethics

correlation coefficient

- 8.2: The Correlation Coefficient r

critical values

- 7.4: One-Sample Test

cumulative distribution function (CDF)

- 4.7: The Exponential Distribution

D

data

- 1.2: Definitions of Statistics, Probability, and Key Terms

degrees of freedom

- 6.3: A Confidence Interval for a Population Mean-Standard Deviation Unknown, Small Sample Case

degrees of freedom (df)

- 7.7: Comparing Two Independent Population Means

dependent variable

- 1.4: Experimental Design and Ethics

descriptive statistics

- 1.2: Definitions of Statistics, Probability, and Key Terms

discrete

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

E

Empirical Rule

- 4.8.1: The Standard Normal Distribution
- 6.1: Introduction to Confidence Intervals

equally likely

- 3.2: Probability Terminology

error bound mean

- 6.2: A Confidence Interval for a Population Mean-Standard Deviation Known or Large Sample Size

estimate of the error variance

- 8.5: The Regression Equation

event

- 3.2: Probability Terminology

expected mean

- 8.7: Predicting with a Regression Equation

expected value

- 8.7: Predicting with a Regression Equation

expected values

- 7.15: Goodness-of-Fit Test

experiment

- 3.2: Probability Terminology

experimental unit

- 1.4: Experimental Design and Ethics

explanatory variable

- 1.4: Experimental Design and Ethics

exponential distribution

- 4.7: The Exponential Distribution

F

fair

- 3.2: Probability Terminology

finite population correction factor

- 5.5: Finite Population Correction Factor

first moment

- 2.7: Skewness and the Mean, Median, and Mode

first quartile

- 2.3: Measures of the Location of the Data

frequency

- 2.2: Display Data

H

histogram

- 2.2: Display Data

hypergeometric experiment

- 4.3: Poisson Distribution

hypotheses

- 7.2: Null and Alternative Hypotheses

hypothesis test

- 7.5: Full Hypothesis Test Examples

hypothesis testing

- 7.1: Introduction to Hypothesis Testing

I

independent

- 3.3: Two Basic Rules of Probability

independent groups

- 7.6: Introduction to Two-Sample Tests

independent variable

- 1.4: Experimental Design and Ethics

inferential statistics

- 1.2: Definitions of Statistics, Probability, and Key Terms

- 6.1: Introduction to Confidence Intervals

Interquartile Range

- 2.3: Measures of the Location of the Data

L

Law of Large Numbers

- 3.2: Probability Terminology
- 5.3: Using the Central Limit Theorem

line graph

- 2.2: Display Data

lurking variables

- 1.4: Experimental Design and Ethics

M

matched pairs

- 7.6: Introduction to Two-Sample Tests

mean

- 1.2: Definitions of Statistics, Probability, and Key Terms

- 2.4: Measures of the Center of the Data

median

- 2.3: Measures of the Location of the Data
- 2.4: Measures of the Center of the Data

mode

- 2.4: Measures of the Center of the Data

multiple correlation coefficient

- 8.5: The Regression Equation

multiplication rule

- 3.3: Two Basic Rules of Probability

multivariate

- 8.2: The Correlation Coefficient r

mutually exclusive

- 3.3: Two Basic Rules of Probability

N

normal distribution

- 4.9: Normal Distribution - Pinkie Length (Worksheet)

- 6.3: A Confidence Interval for a Population Mean-Standard Deviation Unknown, Small Sample Case

- 7.4: One-Sample Test

null hypothesis

- 7.2: Null and Alternative Hypotheses
- 7.4: One-Sample Test

numerical variables

1.2: Definitions of Statistics, Probability, and Key Terms

O

observed values

7.15: Goodness-of-Fit Test

outcome

3.2: Probability Terminology

outlier

2.2: Display Data
2.3: Measures of the Location of the Data

P

paired data set

2.2: Display Data

parameter

1.2: Definitions of Statistics, Probability, and Key Terms

6.1: Introduction to Confidence Intervals

Pareto chart

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

Pearson

1.2: Definitions of Statistics, Probability, and Key Terms

percentage impact

8.6: Interpretation of Regression Coefficients-Elasticity and Logarithmic Transformation

percentiles

2.3: Measures of the Location of the Data

pie chart

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

placebo

1.4: Experimental Design and Ethics

point estimate

6.1: Introduction to Confidence Intervals

Poisson probability distribution

4.3: Poisson Distribution

population

1.2: Definitions of Statistics, Probability, and Key Terms

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

power of the test

7.3: Outcomes and the Type I and Type II Errors

prediction interval

8.7: Predicting with a Regression Equation

preset or preconceived bfa

7.4: One-Sample Test

probability

1.2: Definitions of Statistics, Probability, and Key Terms

3.2: Probability Terminology

probability density function

4.1: Introduction to Discrete Random Variables
4.5.1: Properties of Continuous Probability Density Functions

probability distribution function

4.1: Introduction to Discrete Random Variables

proportion

1.2: Definitions of Statistics, Probability, and Key Terms

Q

Qualitative Data

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

quantitative continuous data

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

Quantitative Data

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

quantitative discrete data

1.3: 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

random variable

7.7: Comparing Two Independent Population Means
7.11: Two Population Means with Known Standard Deviations

regression equation

8.5: The Regression Equation

relative frequency

2.2: Display Data

representative sample

1.2: Definitions of Statistics, Probability, and Key Terms

response variable

1.4: Experimental Design and Ethics

S

sample

1.2: Definitions of Statistics, Probability, and Key Terms

sample space

3.2: Probability Terminology
3.3: Two Basic Rules of Probability
3.4: Contingency Tables and Probability Trees

samples

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

sampling

1.2: Definitions of Statistics, Probability, and Key Terms

second moment

2.7: Skewness and the Mean, Median, and Mode

significance level

7.4: One-Sample Test

skew

2.7: Skewness and the Mean, Median, and Mode

standard deviation

2.8: Measures of the Spread of the Data
6.3: A Confidence Interval for a Population Mean-Standard Deviation Unknown, Small Sample Case
7.4: One-Sample Test

standard error

7.7: Comparing Two Independent Population Means

standard error of the estimate

8.5: The Regression Equation

standard normal distribution

4.8.1: The Standard Normal Distribution

standardizing formula

4.8.2: Using the Normal Distribution

statistic

1.2: Definitions of Statistics, Probability, and Key Terms

statistics

1.2: Definitions of Statistics, Probability, and Key Terms

Stemplots

2.2: Display Data

sum of squared errors (SSE)

8.5: The Regression Equation

T

test of independence

7.16: Test of Independence

test statistic

7.4: One-Sample Test
7.11: Two Population Means with Known Standard Deviations

the central limit theorem

5.2: The Central Limit Theorem for Sample Means

the standard deviation

7.11: Two Population Means with Known Standard Deviations

third quartile

2.3: Measures of the Location of the Data

treatments

1.4: Experimental Design and Ethics

tree diagram

3.4: Contingency Tables and Probability Trees

type I

7.4: One-Sample Test

type I error

7.3: Outcomes and the Type I and Type II Errors

type II error

7.3: Outcomes and the Type I and Type II Errors

U

unfair

3.2: Probability Terminology

unit

8.6: Interpretation of Regression Coefficients-Elasticity and Logarithmic Transformation

unit change

8.6: Interpretation of Regression Coefficients-Elasticity and Logarithmic Transformation

units

8.6: Interpretation of Regression Coefficients-Elasticity and Logarithmic Transformation

V

variable

1.2: Definitions of Statistics, Probability, and Key Terms

variance

2.8: Measures of the Spread of the Data

variation

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

Venn diagram

3.5: Venn Diagrams