

## SECTION OVERVIEW

### Unit 3: Relationships

#### 14: Correlations

- 14.1: Refresh to Prepare
- 14.2: What do Two Quantitative Variables Look Like?
  - 14.2.1: Introduction to Pearson's  $r$
- 14.3: Correlation versus Causation
  - 14.3.1: Correlation versus Causation in Graphs
- 14.4: Strength, Direction, and Linearity
- 14.5: Hypotheses
- 14.6: Correlation Formula- Covariance Divided by Variability
- 14.7: Practice on Anxiety and Depression
  - 14.7.1: Table of Critical Values of  $r$
  - 14.7.2: Practice on Nutrition
- 14.8: Alternatives to Pearson's Correlation
- 14.9: Final Considerations

#### 15: Regression

- 15.1: Introduction- Line of Best Fit
- 15.2: Regression Line Equation
  - 15.2.1: Using Linear Equations
- 15.3: Hypothesis Testing- Slope to ANOVAs
- 15.4: Practice Regression of Health and Happiness
  - 15.4.1: Practice with Nutrition
- 15.5: Multiple Regression

#### 16: Chi-Square

- 16.1: Introduction to Chi-Square
  - 16.1.1: Assumptions of the Test(s)
- 16.2: Introduction to Goodness-of-Fit Chi-Square
  - 16.2.1: Critical Values of Chi-Square Table
  - 16.2.2: Interpretation of the Chi-Square Goodness-of-Fit Test
- 16.3: Goodness of Fit  $\chi^2$  Formula
- 16.4: Practice Goodness of Fit- Pineapple on Pizza
- 16.5: Introduction to Test of Independence
- 16.6: Practice Chi-Square Test of Independence- College Sports
  - 16.6.1: Practice- Fast Food Meals
- 16.7: RM Chi-Square- The McNemar Test
- 16.8: Choosing the Correct Test- Chi-Square Edition

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