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| **Chapter 4, *Telling the Stories of Quantitative Data***  **OBJECTIVES (Pages 90 – 107)**   * Be able to compare groups with histograms. * Be able to compare groups with stem-and-leaf displays. * Be able to compare groups with boxplots. * Understand the computation and significance of outliers. * Calculate measures of the center of a distribution: mean, median. * Calculate measures of position of a distribution: min, Q1, Q3, max. * Calculate measure of spread of a distribution: range, IQR, sample standard deviation, sample variance. * Know that **shifting** data occurs when you add or subtract the same number from each value in your sample. Observe that shifting affects measures of the center (mean, median) and position (min, Q1, Q3, max) by the adding or subtracting of that same amount but does **not** affect the measures of spread (range, IQR, sample standard deviation, and sample variance). * Know that **rescaling** data occurs when you multiply or divide all the data in your sample by a number. Observe that rescaling changes ALL the summary statistics by the scaled amount.   **Technology:** TI-84 plus graphing calculator  ***TUESDAY (11.19.24*)**  **Discuss the previously assigned work:**   * Pages 113 – 115 (#36, 42, 43).   **Class Work/Homework:**  **Review for your Chapter 4 Test on Thursday, 11.21.24. Topics will be shifting, rescaling, The John W. Tukey Rule for Outliers, and comparing parallel box plots.** You may use one page of notes written on one sheet of 8.5 by 11-inch paper, front and back. Your page of notes will be turned in with your test.  ***THURSDAY (11.21.24*)**  **Chapter 4 Test (Topics will be shifting, rescaling, The John W. Tukey Rule for Outliers, and comparing parallel box plots.** You may use one page of notes written on one sheet of 8.5 by 11-inch paper, front and back. Your page of notes will be turned in with your test.)  **Class Work/Homework:**  **Chapter 5, *Under Normal Circumstances* (Pages 117 – 122).** Read, take notes, and fill in the answers here and on page 2. Be ready to discuss in class.   1. Standardizing data uses the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ as a ruler to measure the distance from the mean, creating zscores. 2. What is the formula for finding the zscore for a particular datum? 3. “Zscore”can be written as “z-score,” but it is commonly written just with the letter \_\_\_\_\_. 4. On one test, your class had an average grade of 82 and a standard deviation of 5 points. 5. If you made 100, what will be your z-score? 6. If you made 82, what will be your z-score? 7. If you made 65, what will be your z-score? 8. If your z-score is 1.5, what is your actual score on the test? 9. If your z-score is 0, what is your actual score on the test? 10. If your z-score is -1.5, what is your actual score on the test? 11. What is the **Standard Normal Model**? 12. What is the **Nearly Normal Condition**?   ***FRIDAY (11.22.24*)**  **Discuss the previously assigned work.**  **Class Work/Homework:**  **Chapter 5, *Under Normal Circumstances***  **OBJECTIVES:**  - Understand how extraordinary a standardized value may be by using a Normal Model and knowing when it will be appropriate. - Know how to calculate a z-score. - Estimate the percentage of observations falling within 1, 2, or 3 standard deviations of the mean, using the 68-95-99.7 Rule. - Know how to compare values of different variables using their z-scores.  **Class Work/Homework:**   * Read and take notes on pages 122 – 136. * Page 138 (#7 – 17 odd). |
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