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| **CHAPTER 3, *Exploring Quantitative Data***  **OBJECTIVES (Pages 44 to 77)**   * Create/interpret a histogram. * Create/interpret a stem-and-leaf display. * Interpret a dotplot. * Describe a histogram by giving its shape, center, and spread. * Identify the shape of a histogram in one of several ways:   unimodal, bimodal, uniform, symmetric, left-skewed, right skewed.   * Identify the center of a distribution by stating the median, mean, and mode. * Find the first and third quartiles. * Find the interquartile range. * Report the Five-Number Summary: minimum, 1st quartile, median, 3rd quartile, maximum. * Know that the 2nd quartile is usually known as the median. * Identify the spread of a sample distribution by computing the range, interquartile range, sample variance, and sample standard deviation. * Create/interpret a boxplot. * Know how to find the outliers of a distribution by using both Tukey’s Rule and by using your TI-84 calculator.   **Technology:** TI-84 plus graphing calculator  ***MONDAY (9.16.24*)**  **Review the possible shapes of histograms:** left-skewed, right-skewed, symmetric, uniform.  **Discuss the previously assigned class work/homework (pages 50 – 55).**   * Use the following data and your TI-84 graphing calculator  1. to create a histogram for the following data:   **Commuter Miles for 15 People at GTCHS**   |  |  |  | | --- | --- | --- | | 26. | 15 | 11 | | 18 | 10 | 15 | | 33 | 34 | 19 | | 4 | 36 | 8 | | 1 | 22 | 12 |   (2) to construct a stem-and-leaf display of this data.  (3) to find the mean, median, and mode of this data.  **Class Work:** **Take-Home Quiz** (Histogram Practice\_\_ Bayside City Building Heights), which is due at the beginning of your next class period.  ***WEDNESDAY (9.18.24*)**  **Turn in your Take-Home** Quiz (Histogram Practice\_\_ Bayside City Building Heights), if you have not already done so.  **Class Work \_\_**   * **Review:**   Sketch examples of the following:   * unimodal distribution * bimodal distribution * uniform distribution * symmetric distribution * left-skewed distribution * right-skewed distribution * **Read and take notes** on pages 55 – 58. Pay special attention to ***How do quartiles work?*** on page 57. * **Complete the exercise below:**   The number of calories in 11 different candy bars are the following:  230, 150, 222, 300, 175, 212, 125, 323, 200, 130, 380  Find the following:   1. Mean 2. Median 3. Mode 4. Minimum 5. 1st Quartile 6. 2nd Quartile (usually known as the Median) 7. 3rd Quartile 8. Maximum 9. Interquartile Range 10. Five Number Summary 11. The boxplot   **Homework:**  The birth weights in pounds of babies born on January 1, 2023, in Tapton City, SC, are as follows:  7.2, 9, 12, 5.3, 2.3, 8.1, 7.4, 6.2, 6.8, 7.8  Find the following:   1. Mean 2. Median 3. Mode 4. Minimum 5. 1st Quartile 6. Median 7. 3rd Quartile 8. Maximum 9. Interquartile Range 10. Five Number Summary 11. The boxplot   ***FRIDAY (9.20.24*)**  **Discuss the previously assigned homework.**  **Class Work/Homework:**   * Read and take notes on pages 59 and 60. * Grades on a statistics test given at High University are as follows:   12, 90, 85, 78, 65, 88, 90, 0, 100, 99, 72, 95, 83, 76, 79, 100  Find the following:   1. Mean 2. Median 3. Mode 4. Minimum 5. 1st Quartile 6. Median 7. 3rd Quartile 8. Maximum 9. Interquartile Range 10. Five Number Summary 11. The boxplot 12. The outliers if any 13. What is John W. Tukey’s Test for calculating outliers? |
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