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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 (9.23.24*)** **Discuss the previously assigned work:*** 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, 100Find the following:1. Mean = x̅
2. Median = Med
3. Mode
4. Minimum = Min
5. 1st Quartile = Q1
6. Median = Q2
7. 3rd Quartile = Q3
8. Maximum = Max
9. Interquartile Range = IQR
10. Five Number Summary
11. What is John W. Tukey’s Test for calculating outliers?
12. The outliers if any
13. The boxplot with whiskers and outliers
14. n =
15. range =

**Notes:**Sample variance and sample standard deviation are measures of spread of a distribution. What is the symbol for sample variance?What is the symbol for sample standard deviation?Calculating sample standard deviation ...**Learn how to compute sample variance and sample standard deviation “by hand” and by using your TI-84 graphing calculator. We will use the following data and round our final answers to the nearest tenth.** Check by using the *1-Variable Statistics* option on your TI-84 graphing calculator.1. Heights in Inches for Members of Swim Team

 60, 65, 52, 76, 68, 661. Heights in Inches for Members on a Basketball Team

 76, 75, 67, 74, 73, 701. Grades for 5 Students on Final Math Exam

 88, 88, 88, 88, 88**Class Work/Homework:** * Page 84 (#41, 43, 45).
* Study for the **Quiz: Analyzing a Set of One-Variable Data** to be taken during your next class period.

***WEDNESDAY (9.25.24*)** **Discuss the previously assigned homework:** Page 84 (#41, 43, 45).**Quiz: Analyzing a Set of One-Variable Data** (You may use your notes.)**Class Work/Homework:** * Read and take notes on pages 61 – 68.
* Find the sample variance and sample standard deviation for the following data sets “by hand.” Round your final answers to the nearest tenth. Check by using the *1-Variable Statistics* option on your TI-84 graphing calculator.
1. **The weights in pounds for 6 puppies in the Lake City Humane Shelter are as follows: 5, 6, 10, 12, 15, 19.**
2. **The High Temperatures Recorded in Degrees Fahrenheit for August 1 – 6, 2022, in Valley City, are as follows: 78, 76, 88, 102, 93, 97.**

***FRIDAY (9.27.24*) B-DAY, NO CLASS*****MONDAY (9.30.24*)** **Discuss the previously assigned problems.****Class Work/Homework:** * **Read and take notes on pages 69 – 75.**
* Pages 81 – 83 (#30 – 35).
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