Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table #: \_\_\_\_\_ Period: \_\_\_\_\_\_ Date: \_\_\_\_\_

**9.4 Choosing a Data Display\_Classwork**

*Objective: choose appropriate data displays; identify and analyze misleading data displays. Applying Standard 8.SP.1*

*HW: (9.4) p. 397 #4 – 14 (Remember to “explain your reasoning”)*

|  |  |  |
| --- | --- | --- |
|  | **What does it do?** | **(pg 394)** |
|  | Shows data using pictures |  |
|  | Shows data in specific categories |  |
|  | Shows data as parts of a whole (out of 100%) |  |
|  | Show how data change over time |  |
|  | Shows frequencies of data values in intervals of the same size |  |
|  | Orders numerical data and shows how they are distributed |  |
|  | Shows the variability of a data set by using quartiles |  |
|  | Shows the number of times each value occurs in a data set |  |
|  | Shows the relationship between two data sets by using ordered pairs in a coordinate plane |  |

|  |
| --- |
| **Read Example 1 (p. 394) and do On Your Own #1 & 2**  Choose an appropriate data display for the situation. Explain your reasoning.   1. The population of the United States divided into age groups. 2. The percents of students in your school who play basketball, football, soccer, or lacrosse. 3. ***#15 (textbook)\_***A nutritionist wants to use a data display to show the favorite vegetables of the students at a school. Choose an appropriate data display for the situation. |

|  |  |
| --- | --- |
| **Read Example 2 (p. 395) and do On Your Own #3-5**  You record the number of hits for your school’s new website for 5 months. Tell whether the data display is appropriate for representing how the number of hits changed during the 5 months. Explain your reasoning. | *Tell whether the data display is appropriate for representing the data in Example 2. Explain your reasoning.*   1. Dot plot: 2. Circle graph: 3. Stem-and-leaf plot: |

**Read Example 3 & 4 (p. 396) and do On Your Own #6 & 7** Explain why the data display is misleading

|  |  |
| --- | --- |
| 6. | 7. |

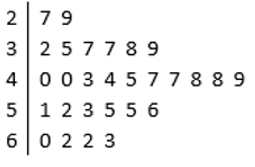
**PRACTICE PROBLEMS**

|  |  |
| --- | --- |
| ***#16 (textbook)\_***A scientist gathers data about a decaying chemical compound. The results are shown in the scatter plot. Is the data display misleading? Explain. | ***#18 (textbook)\_***A survey asked 100 students to choose their favorite sports. The results are shown in the circle graph.   1. Explain why the graph is misleading. 2. What type of data display would be more appropriate for the data? Explain. |

Examples of Data Displays

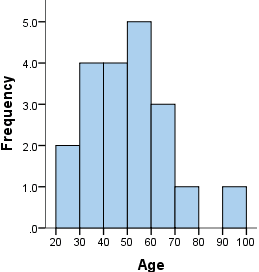
STEM AND LEAF PLOT:

Ages of Teachers

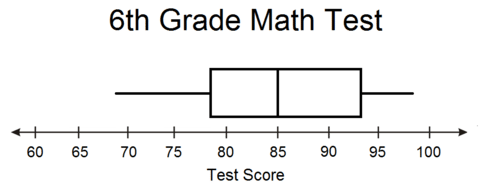


HISTOGRAM

Ages of Teachers



BOX AND WHISKER PLOT



<https://static.bigideasmath.com/protected/content/pe/ca/g8_09.pdf>