

Stem-and-Leaf Plots

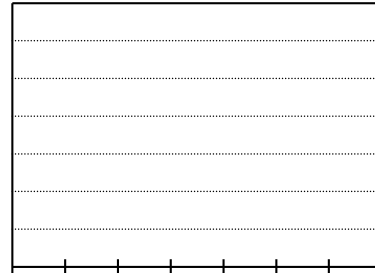
1. A wildlife expert wanted to know how many birds inhabited a wetland area. Each day, he recorded the number of birds he observed and put it into a stem-and-leaf plot.

- a. What is the smallest data value listed?
- b. What is the largest data value listed?
- c. Find the range of the data.
- d. Find the median of the data.
- e. Find the mode of the data.
- f. Find the mean of the data. Show your work.
- g. Use the information in the stem-and-leaf plot to create a histogram. Be sure to include all labels, including the intervals!

Birds in the Wetland

9	0						
10	1						
11	3	4	4	9			
12	3	3	9				
13	0	2	2	5	5	5	9
14	0	2	4				
15	0						

Key: 15 | 0 means 150

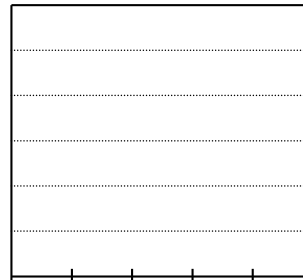


2. Cassie took a poll to see how many books the average eighth grader had read over the summer. She collected the following data and put it in the table on the right.

Number of Books Read Over the Summer									
0	2	5	9	10	11	12	14	18	18
20	20	21	23	28	30	30	30	40	43

- a. Make a stem-and-leaf plot and a histogram for the data. Be sure to include all necessary parts!

0	
1	
2	
3	
4	



- b. Find the mean, median, and mode of the data set.
- c. Explain how you could find the median on the stem-and-leaf plot.

3. The back-to-back stem-and-leaf plot compares the number of minutes students spent doing homework on Wednesday and Thursday.
- Find the median homework time for each day. Show your work.

Minutes Spent on Homework

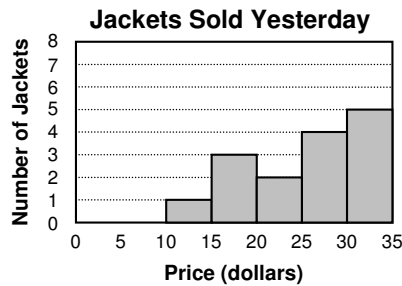
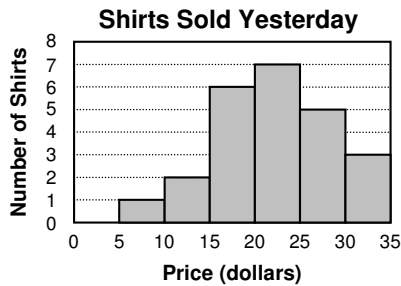
Wednesday		Thursday
	0	0
	5 0	0 5 5 5 5
5 5 5	0 0	2 0 0 5
	5 0	3 0 0
	0	4 5
	0	5 5
	0	6

Key: 5 | 3 | 0 means 35 minutes on Wednesday and 30 minutes on Thursday.

- Find the range of the homework times for each day.
- For each set of data, describe the variability in the distribution of times.

- Which day do you think students spent more time on homework? Justify your choice using data from the stem-and-leaf plot.

4. Diana's Discount Clothes Store sells shirts and jackets. She put yesterday's sales in the following histograms.



Which are more expensive – shirts or jackets?
Justify your answer by using data from the histograms.

- Six students took a quiz. The high was 32, and so was the mode. The mean was 25 and the range was 23. One student scored 1 above the median, and one student scored 1 below the median. The median was 28. What were the six scores?
- At a dancing competition, Faye receives eight scores with a mean of 8.5. For her final score, the greatest and least scores are removed and the mean of the remaining scores is calculated. Faye's final score is 9.2. What is the sum of the two removed scores? Explain.