Name_____

Pre-Algebra Notes
Week 15: Lesson 11.1

Stem-and-Leaf Plots and Histograms (11.1)

Vocab.

- **Stem-and-leaf plot:** A _____ display that _____ data based on their digits.
    - Each value is separated into a _____ (the leading digits) and a _____ (the last digit).

Example 1: Making a stem-and-leaf plot

The distances below (in centimeters) show 11 jumps from the final round of a women's long jump competition and are listed below. Display the distances using a stem-and-leaf plot.

669, 702, 644, 701, 684, 686, 676, 673, 688, 670, 662

Example 2: Interpreting stem-and-leaf plot

The plot shows the prices (in dollars) of the pairs of sneakers at two shoe stores. What can you conclude about the prices at the two stores?

Store A

3	0 2 5 6 9
4	1 1 5 5 9
5	0 3 4 5 8
6	0 0 2 5

Store B

3	0 0 5 9
4	0 0 2 3 3 5 5 5
5	4 4 5 8
6	5 9

- **Frequency:** The frequency of an _____ is the number of data values in the interval.
- **Frequency table:** Another type of _____ that groups data into _____ to show frequencies.

Example 3: Making a Frequency table

In the United States, hurricane season starts June 1 and lasts about 26 weeks. Meteorologists record the number of weeks into the season each hurricane occurs. The number of weeks into the hurricane season in which Atlantic hurricanes occurred from 1997 to 2000 are listed below. Make a frequency table of the data.

6, 7, 14, 12, 13, 14, 16, 16, 17, 17, 19, 21, 26, 12, 12, 13, 15, 15, 20, 20, 24, 10, 12, 15, 16, 17, 17, 18, 20

Solution

1 Choose intervals of equal size for the data.

2 Use a tally mark to record the interval in which each data value falls.

3 Write the frequency for each interval by counting the number of tally marks for the interval.

Weeks	Tally	Frequency

- **Histogram:** displays _____ from a _____ table.

Example 4: Making a Histogram

Make a histogram using the frequency table in Example 3.

1 Show the intervals from
the frequency table on the horizontal axis, and show the frequencies on the vertical axis.

2 Draw a bar to represent the frequency for each interval.

3 Give the histogram a title

Example 5: Interpreting a Histogram

The histogram shows the number of minutes that 100 students spent on the Internet in one day. Make several conclusions about the data.