Worksheet 10/25/2024

Mean: sum of values divided by the number of values

Median: middle value in the sorted data set

Mode: the most common value (or group of values) in the data set

Outlier: a data value that is much higher or much lower than almost all the other values

Distribution curve: a curve that fits the histogram of the data set

A single-peaked distribution is **symmetric** if its left half is a mirror image of its right half.

A single-peaked distribution is **left-skewed** (or **right-skewed**) if the data are more spread out on the left (or right) side of the peak.

1) Body temperature (in degrees Fahrenheit) of ten randomly selected normal and healthy adults. Compute the mean, median, and mode of the data sets.

98.6 98.4 98.6 98.4 98.0 98.4 98.0 98.4 99.0 98.6

2) Eight grocery stores sell the PR energy bar for the following prices:

$1.09 $1.29 $1.29 $1.35 $1.39 $1.49 $1.59 $1.79

Find the mean, median, and mode for these prices.

3) The following data give the margin of victory in the Super Bowl for 2007–2021.

12 3 4 14 6 4 3 35 4 14 6 8 10 11 22

Find the mean and median margin of victory. Identify the outlier(s) in the data set. If you eliminate the outlier(s), what are the new mean and median?

4) The exam scores for 50 students when 5 students scored between 90 and 100, 10 students scored between 80 and 89, 20 students scored between 70 and 79, and 15 students scored below 70, with their scores spread out to a low of 40. Make a sketch of the distribution. Would you expect the distribution to be symmetric, left-skewed, or right-skewed? Explain.

5) Consider the distribution of the ages of patrons who visit an amusement park. How many peaks would you expect the distribution to have? Explain. Make a sketch of the distribution. Would you expect the distribution to be symmetric, left-skewed, or right-skewed? Explain.