

Day 2 Homework Mean, Median, Mode Homework—Show all work on Notebook Paper

For each set of data, determine which measure of central tendency best represents the data. Explain your answer.

1. 38, 35, 40, 36, 33, 42, 37, 39, 34

mean because there don't appear to be outliers

2. 100, 106, 180, 41, 161, 292, 116, 213

data appears to have an outlier at 41, so median is the best measure.

Find the range of the following sets of data.

3. 110, 114, 104, 108, 106 $114 - 104 = 10$

4. 50.8, 51.6, 51.9, 52, 52.5, 52.8, 53.1 $53.1 - 50.8 = 2.3$

5. **Bean Plants** The height in inches of eight bean plants are 28, 36, 41, 50, 35, 42, 46, and 52.

- a. What is the range of bean plant heights? $52 - 28 = 24$
 b. Find the mean, median, and mode of the bean plant heights.

mean = 41.25 median = 41.5
 no mode

- c. Which measure of central tendency best represents the data? Explain.

mean - representative of the whole data set
 no outliers.

6. **Hotel Stay** You are planning a trip to Washington, D.C. and are looking up hotel room rates. On the Internet, you find the following rates for a one-night stay in a hotel in Washington, D.C.

\$109, \$126.50, \$175.95, \$139, \$77.50, \$145, \$162.35, \$173, \$181.50, \$105

- a. Find the mean, median, and mode of the hotel rates.

mean = 139.48 mode = none
 med = 142

- b. Which measure of central tendency best represents the data? Explain.

median - \$77.50 appears to be an outlier.

7. **Temperature** The high and low temperatures for the last seven days are given.

High Temperatures: 81, 78, 83, 89, 90, 87, 89

Low Temperatures: 64, 53, 62, 66, 68, 69, 67

- a. Find the mean, median, mode, and range of each data set. Round to the nearest tenth.

high temp \rightarrow mean = 85.3 med = 87 mode = 89 range = 12

low temp \rightarrow mean = 64.1 med = 66 mode = none

- b. For each data set, describe which measure of central tendency best represents the data. range

Explain.

high = mean

low = median. (53 possible) = 16
 outlier

- c. Compare the spreads of the data using the range.

the lower temperatures are more spread out than the high temperatures.