

LESSON
7-2

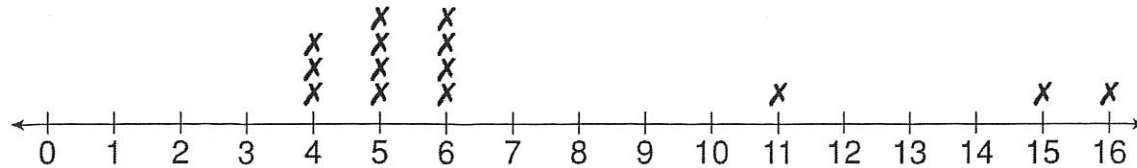
A Deeper Look into
Mean, Median, Mode, and Range

Find the mean, median, mode, and range.

1. 5, 8, 5, 9, 3

2. 58, 54, 60, 56, 52

The line plot below shows the number of kilometers Clara ran each day for 14 days. Use the line plot for Exercises 5 and 6.



3. Find the mean, median and mode for the set of data.

4. Which measure of central tendency best describes the data? Explain your answer.

Use the data set to answer the questions.

22, 18, 15, 19, 61, 21

5. What is the outlier? _____

6. How does the outlier affect the mean, median, and mode?

7. Which measure of central tendency best describes the data set with the outlier?

8. Which measure of central tendency best describes the data set without the outlier?

A Deeper Look into Mean, Median, Mode and Range

Find the mean, median, mode(s), and range of the data.

- 16, 22, 14, 12, 20, 19, 14, 11

Find the value of x that makes the mean the given number.

- 6, 12, 7, 4, 8, 3, x ; mean = 7
 - 2
 - 9
 - 6
 - 4

- The depth of snow at seven different mountain lodges is 18 inches, 20 inches, 26 inches, 22 inches, 85 inches, 18 inches, and 24 inches.
 - Find the mean, median, and mode.
 - Which measure is the most useful for predicting how deep the snow will be at an 8th lodge?

- Three machines at a cheese factory cut the blocks of cheese before they are wrapped. The weights of the cheeses are checked afterwards. The table below shows the weights, in ounces, of the cheese blocks from the three machines.

Cheese	Machine A	Machine B	Machine C
1	32	32	34
2	33	32	35
3	31	33	32
4	34	33	31
5	34	31	33
6	33	33	35
7	32	32	31
8	33	32	30
9	34	33	34
10	32	32	32

Which of the following is **best** supported by the data in the table?

- Machine B wastes the most cheese.
 - Machine A is the most consistent.
 - Machine C is the fastest.
 - Machine C is the least consistent.
- The daily low temperature for ten consecutive days were 26° , 24° , 24° , 25° , 29° , 49° , 52° , 54° , 59° , 23° . Which measure of central tendency best describes the average low temperature for the 10 days? Use this measure to find the average low temperature.
 - median; 39°
 - mode; 24°
 - median; 27.5°
 - mean; 36.5°

Name: _____

- _____ 6. Cindy struck out 7, 14, 6, 4, 5, and 6 batters in softball games this season. In discussing her stats with a newspaper reporter, Cindy's coach mentions that the average number of Cindy's strikeouts is 7. Is the coach's statement misleading? Why or why not.
- No; the mean of her strikeouts is 7.
 - Yes; she struck out 7 batters only one time.
 - Yes; the median of her strikeouts is 7.
 - No; she typically strikes out 7 batters in a game.
7. Patrick's math test scores were 65, 65, 67, 69, 69, 88, 89, 89, and 92. Find the value, the mean or median, that is a better indicator of how well Patrick is doing in class.
8. Kevin surveyed 10 people, asking them to name their favorite TV channel. The results are shown below.
2, 6, 8, 3, 6, 8, 12, 49, 8, 2
Find the value, mean, median or mode, that best represents the favorite TV channel of those surveyed.
9. Bryan can use the mean, median, or mode to describe the average of his test scores. His scores are 62, 64, 93, 68, and 93. If Bryan chooses the mode, how many points higher will his average score be than if he chose the mean?
10. Terry recorded the weights of the first ten fish he caught and released at Hag Lake this season. The weights were 20 pounds, 5 pounds, 14 pounds, 3 pounds, 21 pounds, 8 pounds, 16 pounds, 10 pounds, 17 pounds, and 21 pounds.
- Find the mean, median, and mode.
 - Terry wants to predict how big the next fish he catches will be. Which measure is most useful for describing the data?
11. The ages, in years, of a group of friends are listed.
29, 33, 35, 49, 50, 51, 52, 29
- Find the mean, median, mode, and range.
 - Which measure of central tendency best represents the data? Explain.
12. For the last seven years in Centreville the average rainfall in November has been:
13 in., 14 in., 17 in., 13 in., 12 in., 17 in., 12 in.
Which measure of central tendency best describes the average inches of rainfall in November? Use this measure to find the average rainfall.
13. Leslie recorded the weights of the first ten fish he caught and released at Hagg Lake this season. The weights were 6 pounds, 4 pounds, 7 pounds, 3 pounds, 5 pounds, 2 pounds, 4 pounds, 3 pounds, 20 pounds, and 3 pounds.
- Part A** Find the mean, median, and mode.
- Part B** Explain why mean and mode are inappropriate to describe the data.