

LESSON
2

Data Collection and Analysis

Practice C: Additional Data and Outliers

Use the table to answer Exercises 1–2.

- The table shows some of the years in which the Super Bowl was won by the most points. Find the mean, median, and mode.

- The 1990 Super Bowl had the largest winning margin, which was 45 points. Add this number to the data in the table and find the mean, median, and mode. Which best describes the data?

Super Bowl Winning Margins

Year	Points Won By
1967	25
1972	21
1985	22
1995	23
2001	27

Use the table to answer Exercises 3–4.

- The table shows some of the most successful coaches in the NFL. Find the mean, median, and mode.

- With 347 games won, Don Shula is the most successful NFL coach. Add this number to the data in the table and find the mean, median, and mode. Which best describes the data?

Successful NFL Coaches

Coach	Games Won
Paul Brown	170
Bud Grant	168
Chuck Knox	193
Chuck Noll	209
Dan Reeves	179

- When an outlier is added to a data set, which of these measurements will usually change the most: the range, mean, median, or mode?

- If an outlier is greater than the other data in a set, how will it affect the mean of the data?

Answers for Lesson 2

Practice A

1. mean: 10.75; median: 7.5; mode: none
2. mean: 21; median: 13; mode: none
3. mean: $8.\overline{66}$; median: 9; mode: 9
4. mean: 80; median: 9; mode: 9
5. the mode 6. the median and mode

Practice B

1. mean: 13.6; median: 15; mode: none
2. mean: 11.5; median: 12.5; mode: none
3. mean: 98.2; median: 99; mode: 95
4. mean: $124.\overline{16}$; median: 99.5; mode: 95
5. the mean; because it is much lower than the other data
6. because Texas has many more counties; the median

Practice C

1. mean: 23.6; median: 23; mode: none
2. mean: $27.\overline{16}$; median: 24; mode: none; median
3. mean: 183.8; median: 179; mode: none
4. mean: 211; median: 186; mode: none; the median
5. the range
6. The mean will always be greater.

Review for Mastery

1. mean: 28; median: 26; mode: 26
mean: 25.1; median: 26; mode: 26
2. mean: 22.3; median: 16.5;
mode: 14 and 19.

The median best describes the data.

Challenge

Some answers depend on student ages. Sample answers are given for age 12.

Youngest Astronauts

Data Without Your Age:

Mean age: 27 Median age: 27
Mode age: 26 and 28

Data With Your Age:

Mean age: 25.125 Median age: 26.5
Mode age: 26 and 28

Oldest Astronauts

Data Without Your Age:

Mean age: 60 Median age: 58
Mode age: no mode

Data With Your Age:

Mean age: 54 Median age: 57
Mode age: no mode

Problem Solving

1. mean: \$385 million; median: \$404 million; mode: none
2. mean: \$421 million; median: \$414 million; mode: none
3. D 4. F
5. C 6. H

Reading Strategies

1. Possible answer: You can see that 70 is set apart from the other scores.
2. decrease
3. Possible answer: The numbers are stacked on top of each other.
4. increase 5. mode

Puzzles, Twisters & Teasers

1. 0.5 (5 tenths) 2. 9
3. 3 4. 1.6
5. If Mode move 5 spaces down

