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NAME _____ DATE _____

Module 19 Analyzing Data and Statistics
Lesson 3 Analyzing and Describing Graphs

Use the stem-and-leaf plot below to answer Questions 1–4.

12	2
13	1 3 4
14	2 4 6 7
15	5 9

12|2 = 122

1. What is the value of the median?

a. 142
b. 143
c. 144
d. 140

2. Which values are in the upper half of the data set?

a. 122, 131, 133, 134
b. 122, 131, 133, 134, 142
c. 142, 144, 146, 147, 155, 159
d. 144, 146, 147, 155, 159

3. What is the value of the first quartile?

a. 133
b. 143
c. 144
d. 147

4. What is the interquartile range?

a. 37
b. 14
c. 143
d. 2

Graph. Create box-and-whisker plots from the given data.

5. Number of Fish per Year in Long's Pond

Minimum:	89
First Quartile:	125
Median:	144
Third Quartile:	152
Maximum:	168

6. Team Batting Averages

Team 1:	0.291	Team 8:	0.240
Team 2:	0.295	Team 9:	0.270
Team 3:	0.247	Team 10:	0.260
Team 4:	0.286	Team 11:	0.267
Team 5:	0.255	Team 12:	0.236
Team 6:	0.263	Team 13:	0.231
Team 7:	0.260	Team 14:	0.215

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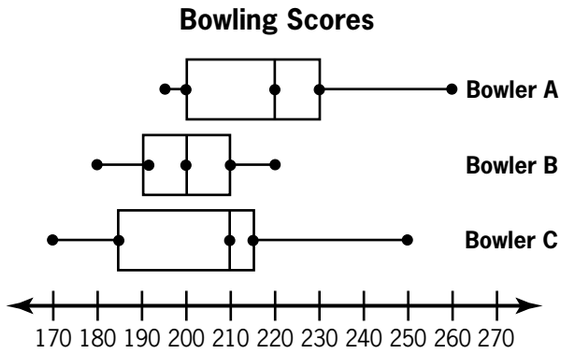
Use the box-and-whisker plots below to answer Questions 7–10.



7. Which bowler had the highest median bowling score?

a. Bowler A
b. Bowler B
c. Bowler C

8. Which bowler had the highest single game?

a. Bowler A
b. Bowler B
c. Bowler C

9. Which bowler had the broadest range of scores over the season?

a. Bowler A
b. Bowler B
c. Bowler C

10. Which bowler was probably the most consistent from game to game?

a. Bowler A
b. Bowler B
c. Bowler C

Journal

1. What does the "box" in a box-and-whisker plot represent? Explain what it means if a box-and-whisker plot has a very long box with very short whiskers.

2. Provide a scenario in which a box-and-whisker plot is only a vertical line (that is, it has no box and no whiskers). Explain your reasoning with an example.

3. Maria surveyed the 19 students in her math class to determine the number of test questions each answered correctly on the last exam. She put the results in the following stem-and-leaf plot:

2	2
4	0
6	6 4
7	3 4 4 5 4 9 7 6
8	0 1 5
9	2 6 3
10	0

2|2 = 22

Maria determined that the median number of questions answered correctly was 79. Was she correct? Why or why not?

4. Explain why it does not make sense to ask how many data values are in the third quartile of a given data set.

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Cumulative Review

Use the following data set to answer Questions 1–3:
5, 7, 8, 11, 12, 12, 14, 15, 16, 17, 20, 20, 20, 22, 23, 27, 27, 31, 35

1. What is the mean of the data set? _____

2. What is the median value in the data set? _____

3. What is the mode of the data set? _____

Use the following data set to answer Questions 4–6:
2, 3, 4, 4, 4, 5, 6, 8, 18, 18, 19, 22, 23, 27, 32

4. What is the mean of the data set? _____

5. What is the median value in the data set? _____

6. What is the mode of the data set? _____

Use the charts to answer each question.

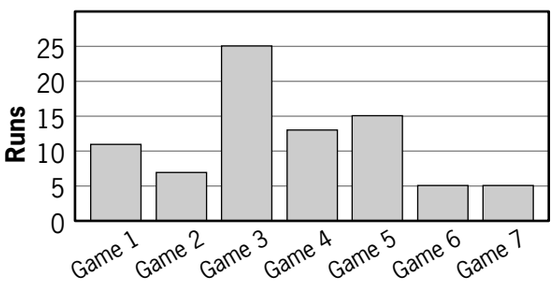
7. In which game were the most total runs scored?

_____

8. In which games were the total runs the same?

_____

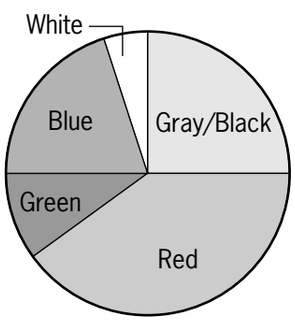
Total Runs by Game — 1947 World Series



9. What color car is most common in the school parking lot?

_____

Color of Cars in School Lot



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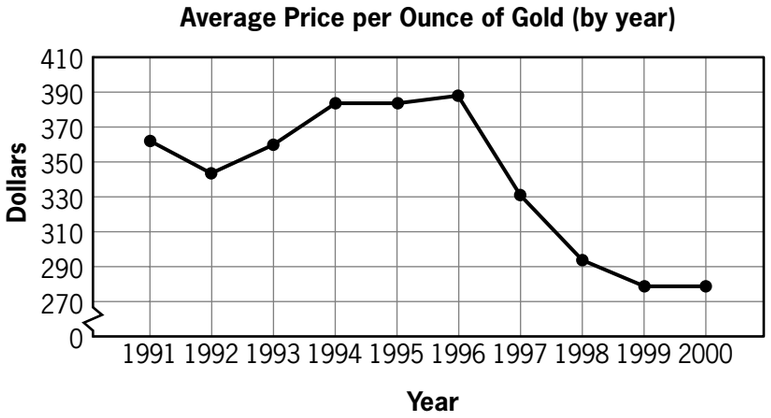
10. Between which two years did the average price per ounce of gold decrease the most?

_____



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