$\qquad$ DATE $\qquad$
$\qquad$

## Lesson 3 Homework Practice

## Measures of Variation

1. Use the data in the table.

| Weights of Black Bears (lb) |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 277 | 448 | 279 | 334 | 132 | 599 | 237 | 251 | 183 | 191 |

a. Find the range of the data.

408

b. Find the median and the first and third quartiles.

$$
\text { Median = 264, Q1 = 191, Q3 = } 334
$$

c. Find the interquartile range.

143
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2. Use the data of average monthly precipitation in Johnstown shown in the table.

Monthly Precipitation

| Month | Jan. | Feb. | Mar. | Apr. | May | Jun. | Jul. | Aug. | Sept. | Oct. | Nov. | Dec. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Inches | 1.71 | 1.49 | 1.92 | 1.93 | 3.56 | 9.89 | 7.34 | 8.62 | 8.23 | 3.80 | 1.89 | 1.72 |

a. Find the range of the data.
8.4
b. Find the median and the first and third quartiles.
Median = 2.745, Q1 = 1.805, Q3 =7.785
c. Find the interquartile range.
$\qquad$ DATE $\qquad$
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## Lesson 3 Problem-Solving Practice

## Measures of Variation

Use the table below that shows the winning scores in the Super Bowl.

| Winning Super Bowl Scores, 1997-2008 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
| 35 | 31 | 34 | 23 | 34 | 20 | 48 | 32 | 24 | 21 | 29 | 17 |

1.) Explain how to find the range of the data. Then find the range.
subtract the lowest score from the highest score; 31
3. Describe how to find the limits for outliers. Then find the limits

Find the median, the first and third quartiles, and the interquartile range of the winning scores.
Median = 30, Q1 = 22, Q3 =34, IQR=12
4. Are there any outliers among the winning Super Bowl scores? If so, what are they? Explain your reasoning.

Use the table showing the scores on a U.S. History test.

| Scores on a U.S. History Test |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 84 | 86 | 79 | 97 | 88 | 89 |  |
| 94 | 89 | 81 | 90 | 82 | 61 |  |
| 91 | 83 | 95 | 80 | 97 | 78 |  |

Find the range, median, first and third quartiles, and the interquartile range of the test scores.

Range $=36$, Median $=87, Q 1=81, Q 3=91, I Q R=10$
6. Are there any outliers in this data? Explain your reasoning.

