

## Section 2.2 Extra Practice

1. Determine the range and identify any outliers in each data set.
  - a) 21, 18, 25, 9, 22, 19, 31, 20, 19, 21
  - b) -1, -5, -7, -3, -5, -2, -8, -15, -6, -3
  - c) 8, 5, 18, 10, 9, 8, 11, 7, 10, 8
  - d) 2.1, 2.4, 2.0, 2.5, 1.5, 2.2, 2.1, 3.0, 1.9, 2.4
2. Calculate the mean and trimmed mean for each data set in #1. Remove the highest and lowest values to calculate the trimmed mean. Round your answers to one decimal place.
3. The weights of ten lobsters caught were recorded in pounds: 1.5, 2.0, 1.4, 4.1, 1.5, 1.6, 2.1, 1.4, 1.1, 1.2.
  - a) What is the range of the data set?
  - b) What are the three measures of central tendency for the data set?
  - c) Identify any outliers. Should the outliers be removed when advertising the average weight of lobsters this season? Explain.
  - d) Remove the highest and lowest values and recalculate the range, median, and mean.
  - e) How did removing the highest and lowest values affect these measures of central tendency?
4. The table shows the average rainfall for the ten Canadian provincial capitals for the month of October.

Capital City	October Average Rainfall (mm)
St. John's	159
Charlottetown	105
Halifax	125
Fredericton	95
Québec	109
Toronto	65
Winnipeg	13
Regina	15
Edmonton	11
Victoria	15

- a) John says the typical rainfall for a Canadian city in October is 71 mm. Which measure of central tendency did he use?
- b) Vanessa says the typical rainfall for a Canadian city in October is 80 mm. Which measure of central tendency did she use?
- c) Ben says the typical rainfall for a Canadian city in October is 68 mm. Which measure of central tendency did he use?
- d) Which measure of central tendency do you think best describes the typical rainfall amounts in a Canadian city for the month of October? Justify your choice.



Name: \_\_\_\_\_

Date: \_\_\_\_\_

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(continued)

- 5.** Determine the 50th percentile for each data set. Then, find the 25th and 75th percentile for each data set.

- a)** 20, 18, 25, 16, 21, 16
- b)** 53, 52, 47, 38, 41, 51, 36, 42, 51, 46, 49
- c)** 8, 15, 27, 6, 21, 14, 19
- d)** 87, 101, 96, 89, 91, 103, 97, 100, 87

- 6.** Use the data set to answer the questions.

Stem (tens)	Leaf (ones)
0	4 8
1	0 2 3 5 7 7 9
2	0 0 1 2 2 3 4 5 5 5 6 8 9
3	2 3 3 6 8 9 9
4	0 1

- a)** What value is the 50th percentile? the 25th percentile? the 75th percentile?
- b)** What is the percentile rank of a value of 12? of 21? of 40? Round your answers to the nearest whole number.

- 7.** Glenn scored 36 out of 50 at a dance competition. He did not win the top prize, but he was pleased with his rank. The scores of eight other dancers were 20, 39, 32, 25, 41, 31, 33, 32.

- a)** What is the range of the scores?
- b)** At what percentile is a score of 31?
- c)** At what percentile is a score of 39?
- d)** What score is at the 50th percentile?
- e)** Why do you think Glenn was pleased with his score?

