Data Collection and Analysis

Practice B: Measures of Variation

1. Tanya kept track of the number of songs she downloaded each day this week. Her data is shown in the table.

Sun	Mon	Tue	Wed	Thu	Fri	Sat
7	1	0	4	8	3	10

Use the data to make a box-and-whisker plot.

Find the interquartile range for each data set. Round your answers to the nearest tenth.

2. 2, 5, 9, 1, 6, 9, 3

3. 15, 20, 20, 10

4. 6, 12, 10, 6, 9

5. 0, 8, 2, 5, 7, 9, 8, 1

6. The number of lawns the workers in Dan's company have mowed in the first 6 weeks of the summer is 31, 24, 32, 28, 29, and 36. What is the mean absolute deviation for the number of lawns mowed in the first 6 weeks of summer?

7. The amount of rainfall (in inches) for each of the first 5 months of the year is 1, 3, 8, 4, and 4. What is the mean absolute deviation for the number of inches of rain for the first 5 months of the year?

8. The number of customer-service calls Sheila has answered each hour from 9 A.M. to 2 P.M. is 24, 40, 18, 12, and 20. What is the mean absolute deviation for the number of customer service calls answered each hour?

Answers for Lesson 3

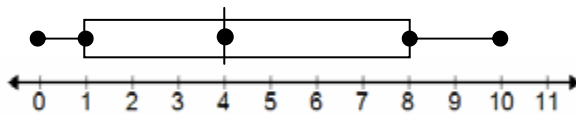## Practice A

1.
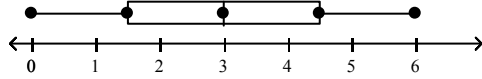
2. 6	3. 17.5
4. 6	5. 2
6. 1.4	7. 2.2
8. 1.0	

Practice B

1.

2. 7	3. 7.5
4. 5	5. 6.5
6. 3	7. 1.6
8. 7.36	

Practice C

1.
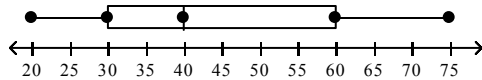
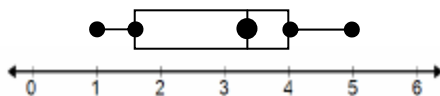| 2. 18	3. 1.9
4. 175	5. 0.9
6. 37.5	7. 2.1
8. 4	

Review for Mastery

1. Theo measured 8 samples for an experiment. The weight of each sample (in grams) is: 3, 2, 4, 1, 4, 5, 1, 4

   Box-and-Whisker Plot:

   IQR: 4 − 1.5 = 2.5

Absolute Mean Deviation: 3 + 2 + 4 + 1 + 4 + 5 + 1 + 4 = 24 ÷ 8 = 3

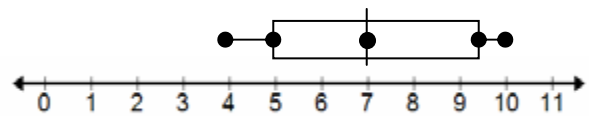2 + 2 + 1 + 0 + 1 + 1 + 1 + 2 = 10 ÷ 8 = 1.25

Challenge

Answers will vary.

1. Check students' drawings.
2. Check students' drawings.
3. Answers will vary.
4. Answers will vary.

Problem Solving

1. a.

   b. 4.5   c. 2

2. a. Jen: 2.25 points; Caitlyn: 3.75 points

   b. Jen's points per game were within 2.25 points of her mean, 7 points per game.
   Caitlyn's points per game were within 3.75 points of her mean, 6.5 points per game. Caitlyn has a greater deviation from the mean than Jen.

3. C	4. F
5. B	6. H

Reading Strategies

1. 6; more spread out
2. 3; closer together
3. 4; same