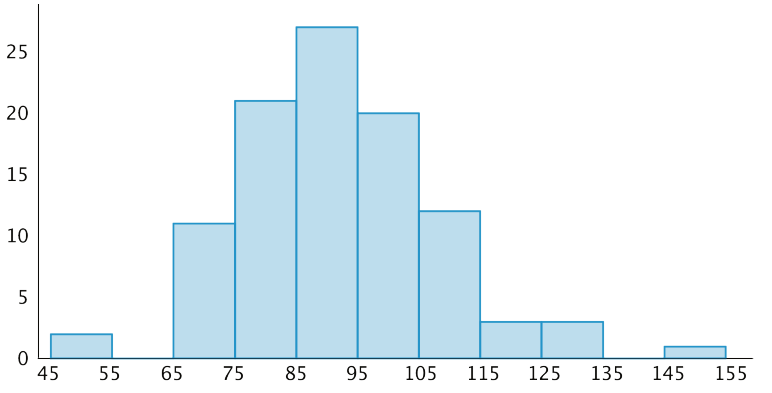
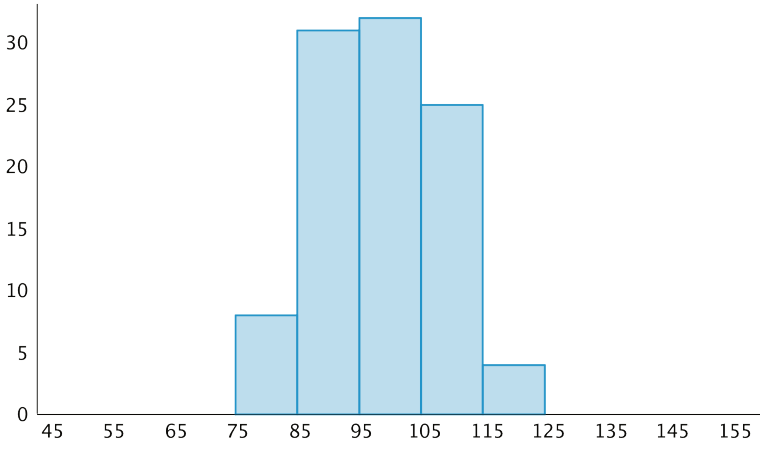
Lesson 7 Practice Problems

1. These two histograms show the number of text messages sent in one week by two groups of 100 students. The first histogram summarizes data from sixth-grade students. The second histogram summarizes data from seventh-grade students.



text messages sent per week by sixth-grade students



text messages sent per week by seventh-grade students

a. Do the two data sets have approximately the same center? If so, explain where the center is located. If not, which one has the greater center?

b. Which data set has greater spread? Explain your reasoning.

c. Overall, which group of students—sixth- or seventh-grade—sent more text messages?

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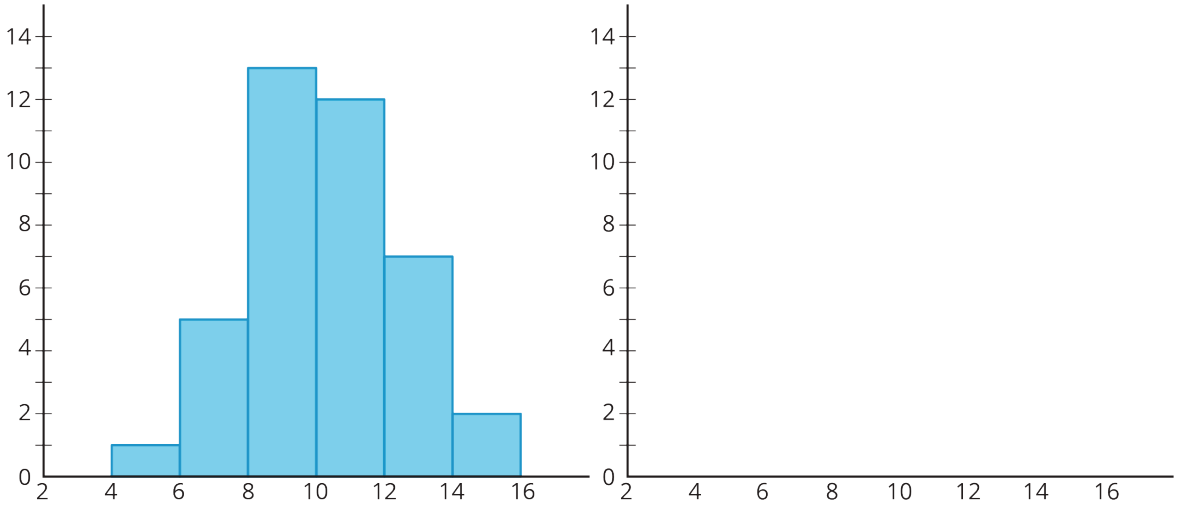
2. Forty sixth-grade students ran 1 mile. Here is a histogram that summarizes their times, in minutes. The center of the distribution is approximately 10 minutes.

   On the blank axes, draw a second histogram that has:

   - a distribution of times for a different group of 40 sixth-grade students.
   - a center at 10 minutes.
   - less variability than the distribution shown in the first histogram.



3. Jada has d dimes. She has more than 30 cents but less than a dollar.

   a. Write two inequalities that represent how many dimes Jada has.

   b. Can d be 10?

   c. How many possible solutions make both inequalities true? If possible, describe or list the solutions.

(From Unit 7, Lesson 9.)

4. Order these numbers from greatest to least: -4, $\frac{1}{4}$, 0, 4, $-3\frac{1}{2}$, $\frac{7}{4}$, $-\frac{5}{4}$

(From Unit 7, Lesson 4.)

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