

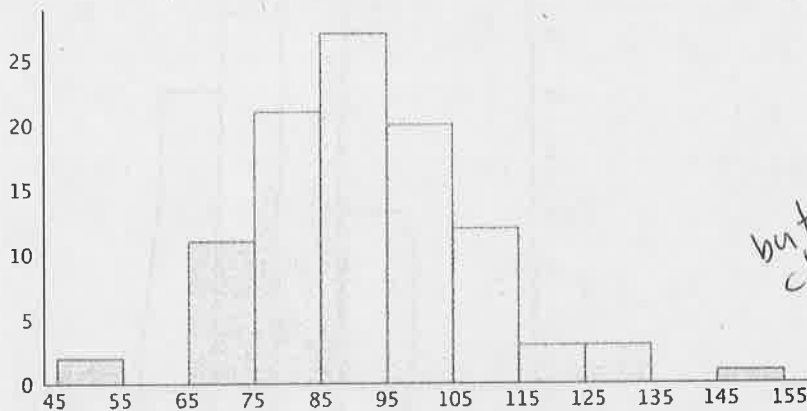
NAME _____

DATE _____

PERIOD _____

Unit 8, Lesson 7: Using Histograms to Answer Statistical Questions

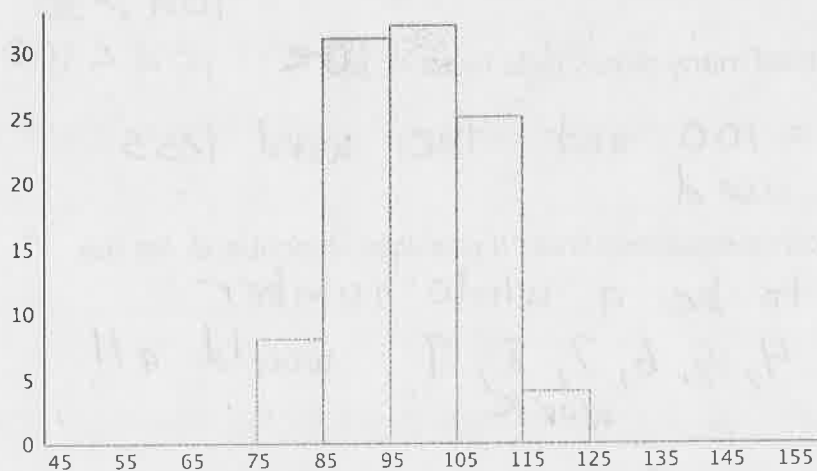
1. These two histograms show the number of text messages sent in one week by two groups of 100 students. The first histogram summarizes data from sixth-grade students. The second histogram summarizes data from seventh-grade students.



text messages sent per week by sixth-grade students

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?

but close 😊 6th grade seems to be in 85-95 message
7th grade a bit higher - in 95-105 message.



text messages sent per week by seventh-grade students

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

6th from 45-55 → 145-155
7th only 75-85 → 115-125

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

Very close because the centers are similar.

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.

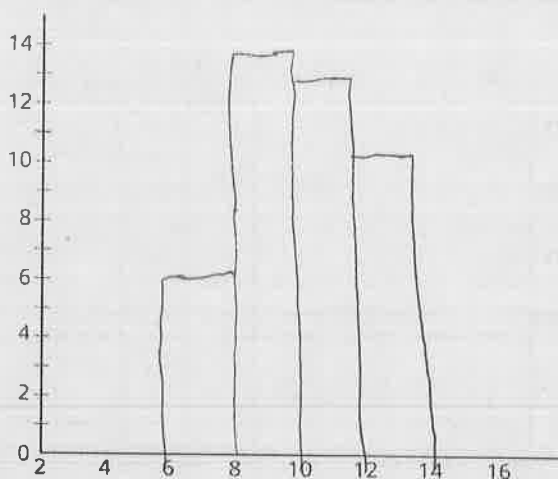
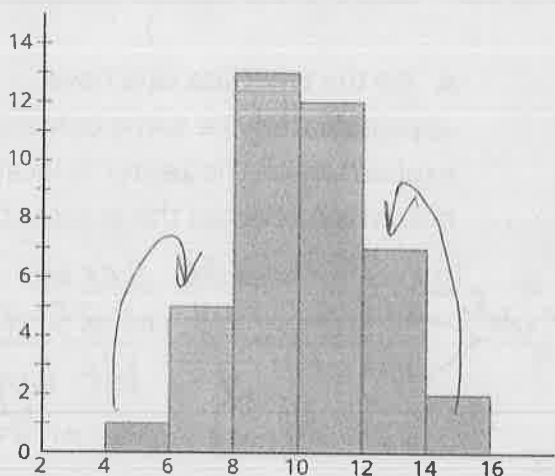
NAME _____

DATE _____

PERIOD _____

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.

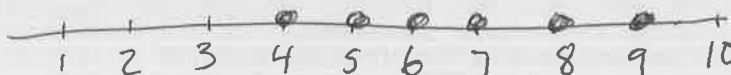
a. Write two inequalities that represent how many dimes Jada has.

$10d > 30$
 ~~$10d < 100$~~ $10d < 100$

b. Can d be 10? **NO** $10d = 100$ and the word less is used

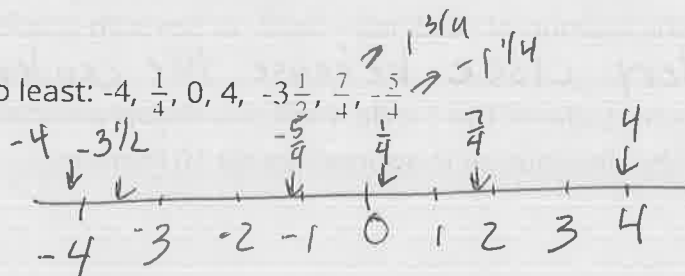
c. How many possible solutions make both inequalities true? If possible, describe or list the solutions.

d has to be a whole number
 so 4, 5, 6, 7, 8, 9 would all work



(from Unit 7, Lesson 9)

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



(from Unit 7, Lesson 4)

Greatest $4, \frac{7}{4}, \frac{1}{4}, -\frac{5}{4}, -3\frac{1}{2}, -4$ Least