

NAME: \_\_\_\_\_

## UNIT 4 • DESCRIBING DATA

### Lesson 1: Working with a Single Measurement Variable

#### Practice 4.1.3: Comparing Data Sets

Brian recorded the number of commercials played during two types of television shows: an educational documentary and a primetime drama. Both types of shows lasted 1 hour, including commercials. He recorded the number of commercials for 10 episodes of each type of show. Use Brian's tables to solve problems 1–4.

Educational Documentary	
Show	Number of commercials
1	26
2	28
3	30
4	18
5	27
6	18
7	20
8	31
9	17
10	17

Primetime Drama	
Show	Number of commercials
1	39
2	39
3	35
4	29
5	40
6	27
7	41
8	29
9	32
10	30

1. Determine which measure of center to use to compare the data.
2. Calculate the measure of center for both data sets.
3. Calculate the mean absolute deviation of each data set.
4. Use the measures of center and spread to describe any similarities and differences between the data sets.

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The number of elementary school students who ride the buses for two Macon schools are listed below. Use these tables to solve problems 5–8.

Macon School 1	
Bus	Number of students
1	17
2	34
3	41
4	47
5	16
6	36
7	37
8	20

Macon School 2	
Bus	Number of students
1	29
2	34
3	22
4	26
5	26
6	31
7	22
8	35
9	27
10	30

- Determine the minimum, maximum, first quartile, median, and third quartile of each data set.
- Create a box plot of each data set.
- Compare the center and spread of the data from each school.
- Why do you think the data is distributed differently at the two schools?

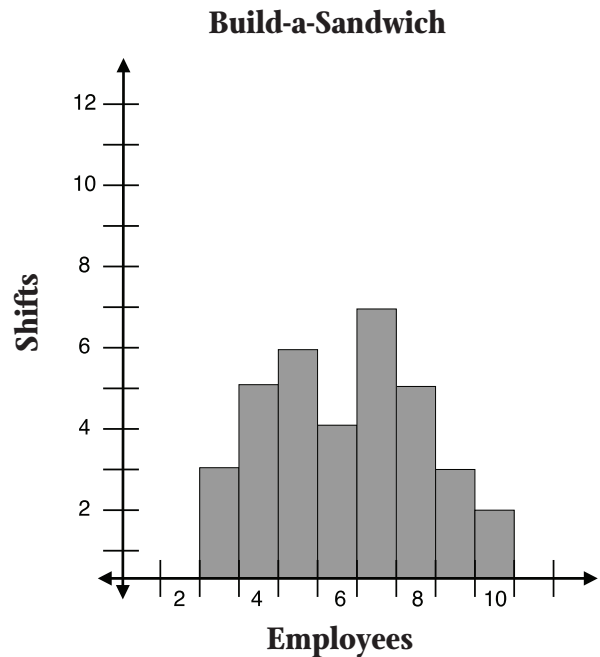
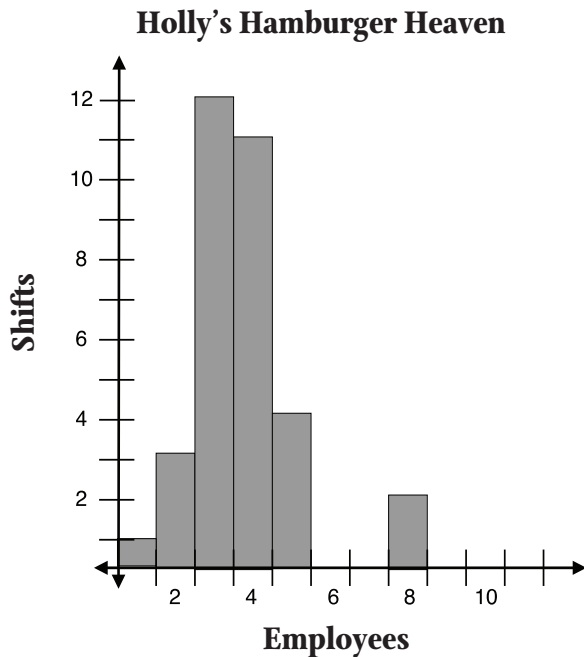
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Employees at a restaurant sometimes work more than one shift in a day. Managers at two different restaurants, Holly's Hamburger Heaven and Build-a-Sandwich, each note how many shifts their employees worked in a single week. The data is plotted in the histograms below. Use these histograms to solve problems 9 and 10.



9. At which restaurants do employees work, on average, fewer shifts? Explain.

10. Describe the difference in the variation of the number of shifts worked at each restaurant.