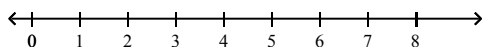


### Station #3 – Review for Statistics Test

1. The following table shows the number of computers in homes surveyed.

| Number of Computers | Frequency |
|---------------------|-----------|
| 0-1                 | 8         |
| 2-3                 | 10        |
| 4-5                 | 6         |
| 6-7                 | 2         |

- How many total homes were surveyed?
- Find the mean, median, mode, and range of the data.
- Create a dot plot of the data.



d. Describe the dot plot. (shape, center, and spread)

2. The following table shows a 3<sup>rd</sup> grade class' number of siblings.

| Number of Siblings | Frequency | Relative Frequency |
|--------------------|-----------|--------------------|
| 0                  | 7         |                    |
| 1                  | 6         |                    |
| 2                  | 5         |                    |
| 3                  | 2         |                    |
| 4                  | 2         |                    |

- Fill in the relative frequency column.
- How many students are in the class?
- Explain the difference between the frequency and relative frequency.
- What percent of students have more than 2 siblings?

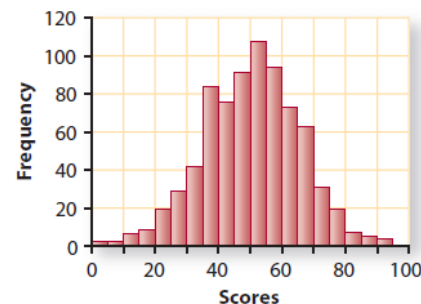
e. What percentage of students are only children?

f. What percentage of students have exactly 1 sibling?

3.

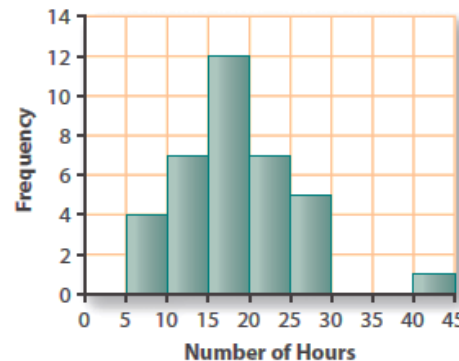
The histogram below gives the scores of the ninth-graders at Lakeside High School on their high school's exit exam.

Exit Exam Scores



- Estimate the mean and the standard deviation of the scores.
- Estimate the percentile of a student whose score is one standard deviation below the mean. Then estimate the percentile corresponding to a score one standard deviation above the mean.

4. All 36 members of the Caledonia High School softball team reported the number of hours they study in a typical week. The data is shown below.



a. Estimate the mean and the standard deviation of the distribution from the histogram.

b. Compute the mean and standard deviation from the data collected by the team

|    |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|----|
| 5  | 5  | 5  | 6  | 10 | 11 | 12 | 12 | 12 | 13 | 14 | 15 |
| 15 | 16 | 16 | 16 | 17 | 17 | 17 | 17 | 18 | 19 | 19 | 20 |
| 20 | 20 | 20 | 20 | 20 | 23 | 25 | 25 | 25 | 27 | 28 | 40 |

c. Sarah is the student who studies 40 hours a week. She is thinking of quitting the softball team. How will the mean and standard deviation change if Sarah quits and her number of hours is removed from the set of data?