

Aim: How do we use the five-statistical summary to construct a box-and-whisker plot?

Do Now: Find the mean, median, and mode for the following list of numbers: 3, 4, 7, 2, 7, 13.

Mean =

Median =

Mode =

1. Katie received the following test scores in her English class: 80, 75, 90, 95, 65, 65, 80, 85, 70, 100.

a. Put the scores in numerical order.

b. The smallest value is _____.

c. The largest value is _____.

d. The range of values is _____.

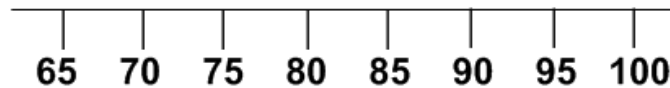
e. The median of these scores is _____.

f. The first quartile of these scores is _____.

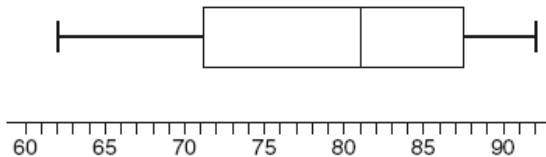
g. The second quartile of these scores is _____.

h. The third quartile of these scores is _____.

2. Draw a box-and-whisker plot of the test scores in the problem above.



3. The accompanying diagram shows a box-and-whisker plot of student test scores on last year's midterm examination.



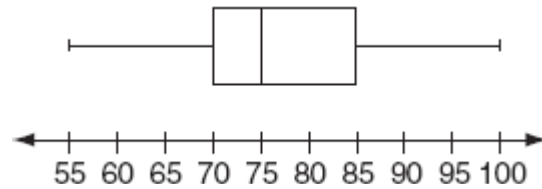
a. What is the median score?

b. What is the first quartile?

c. What is the third quartile?

d. What is the range?

4. The accompanying box-and-whisker plot represents the scores earned on a science test.



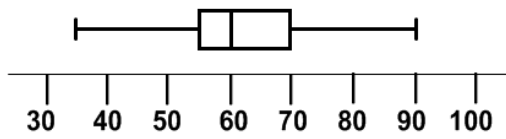
a. What is the median score?

b. What is the first quartile?

c. What is the third quartile?

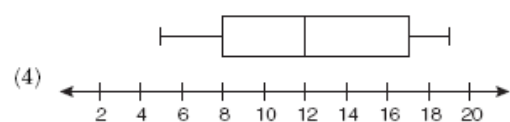
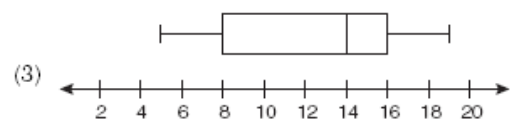
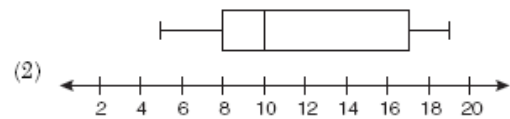
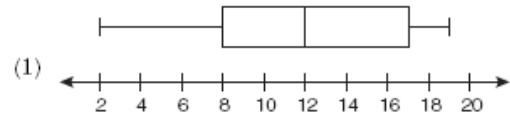
d. What is the range?

5. The number of e-mails 20 different students sent in a week varied from 35 to 90, as seen in the box-and-whisker graph below:



- What is the minimum number of e-mails sent?
- What is the number at the 25th percentile?
- What is the number at the 50th percentile?
- What is the number of e-mails sent at the 75th percentile?
- What is the maximum number sent?
- What is the median number sent?

6. The data set 5, 6, 7, 8, 9, 9, 9, 10, 12, 14, 17, 17, 18, 19, 19 represents the number of hours spent on the Internet in a week by students in a mathematics class. Which box-and-whisker plot represents the data?



7. Given the following ages: 20, 27, 28, 29, 30, 31, 33, 33, 37, 39 and 55:
- What is the minimum age?
 - What is the lower quartile age?
 - What is the median age?
 - What is the upper quartile age?
 - What is the maximum age?
 - Construct a box-and-whisker plot for this data.

8. Draw a box-and-whisker plot for the ages of 13 employees at a local store:

21, 28, 29, 30, 31, 33, 34, 34, 37, 39, 40, 43, 57