Lesson 7.13 Plotting Data: Box-and-Whisker Plots
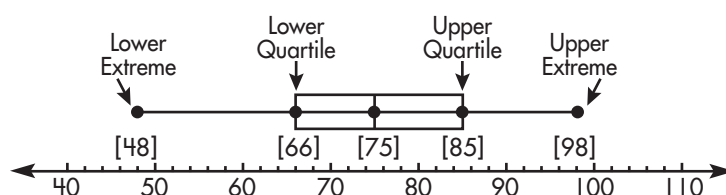
Box-and-whisker plots are helpful in interpreting the distribution of data. For example, the results of a test might include these 15 scores:

66, 56, 75, 77, 98, 72, 48, 83, 73, 89, 65, 74, 87, 85, 81

The numbers should be arranged in order:

48, 56, 65, 66, 72, 73, 74, 75, 77, 81, 83, 85, 87, 89, 98

The median is 75. The **lower quartile** is the median of the lower half (66). The **upper quartile** is the median of the upper half (85). Draw a box around the median with its ends going through the quartiles. Each quartile contains one-fourth of the scores.

Answer the questions using the box-and-whisker plot above.

1. Half of the students scored higher than _____ on the test.

2. _____ scores are represented in the box part of the plot.

3. The range of the scores on the test is _____.

The scores on a recent daily quiz were 10, 15, 20, 20, 30, 30, and 40.

4. What is the median of these scores? _____

5. What is the lower quartile? _____

6. What is the upper quartile? _____

7. Using the number line below, draw a box-and-whisker plot for these scores.