

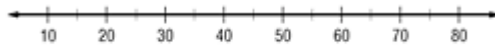
Lesson 12-3

Example 1 Draw a Box-and-Whisker Plot

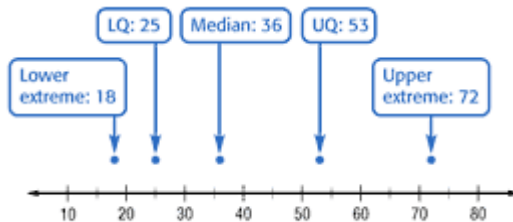
MONTHLY INCOME The monthly income teenagers earn from babysitting is shown. Display the data in a box-and-whisker plot.

36 72 20 42 53 18 25 41 67 33 25

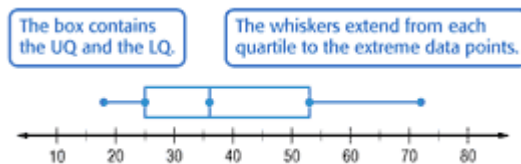
Step 1 Find the least and the greatest number. Then draw a number line that covers the range of the data.



Step 2 Find the median, the extremes, and the upper and lower quartiles. Mark these points above the number line.

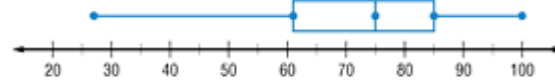


Step 3 Draw a box and the whiskers.



Example 2 Interpret Data

TEST SCORES Use the box-and-whisker plot to answer the questions below.



a. What was the lowest test score earned on the math exam?

The lowest test score earned was 27.

b. Half of the students scored under what score?

Half of the students scored under 75.

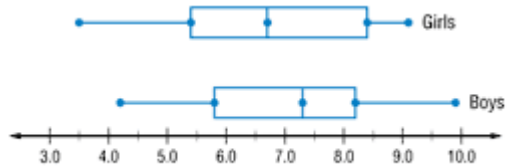
c. What does the length of the box-and-whisker plot tell about the data?

The length of the box-and-whisker plot stretches from 27 to 100.

This tells us that the test scores are very spread out.

Example 3 Compare Two Sets of Data

BIRTH WEIGHT The weight, in pounds, of newborn baby boys and girls is displayed. How do the weights of newborn boys compare to newborn girls?



Fifty percent of boys weigh between 5.8 and 8.2 pounds. However, some weigh as much as 9.9 pounds. Fifty percent of girls weigh between 5.4 and 8.4 pounds. However, some weigh up to 9.1 pounds. Thus, the weights of newborn boys and girls vary in similar ways.