Lesson 9.4 Measures of Variation

Example 1: Finding the Range

The table shows the lengths of several Burmese pythons captured for a study. Find and interpret the range of their lengths.

Lengths (feet)	
18.5	8
11	10
14	15.5
12.5	6.25
16.25	5

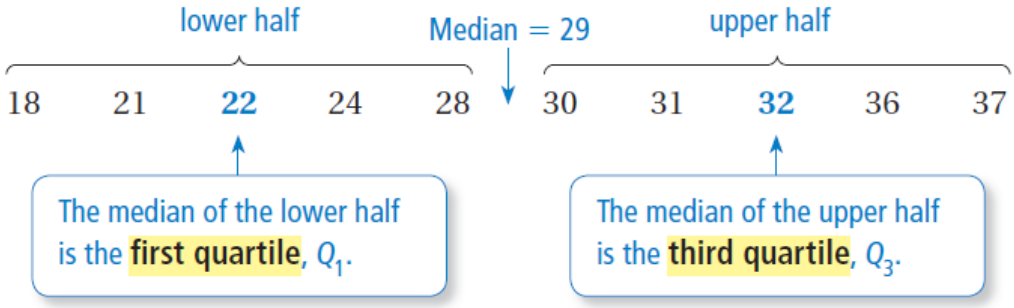
Example 1: On Your Own

1. The ages of people in line for a roller coaster are 15, 17, 21, 32, 41, 30, 25, 52, 16, 39, 11, and 24. Find and interpret the range of their ages.

Key Ideas

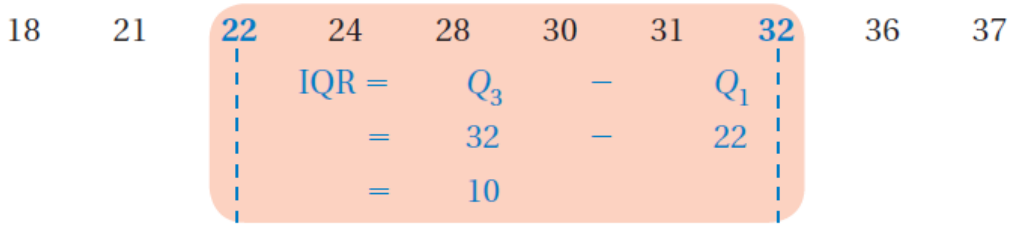
Quartiles

The **quartiles** of a data set divide the data into four equal parts. Recall that the median (second quartile) divides the data set into two halves.



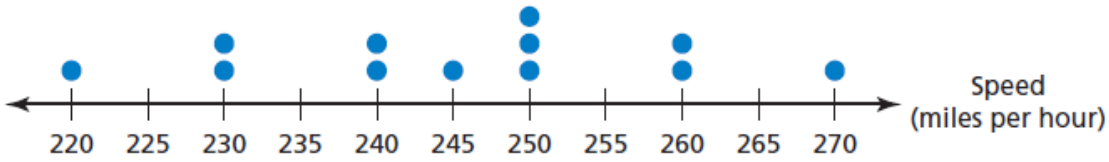
Interquartile Range (IQR)

The difference between the third quartile and the first quartile is called the **interquartile range**. The IQR represents the range of the middle half of the data and is another measure of variation.



Example 2: Finding the Interquartile Range

The dot plot shows the top speeds of 12 sports cars. Find the interquartile range of the data.



Example 2: On Your Own

The number of pages in each of an author's novels is shown:

356, 364, 390, 468, 400, 382, 376, 396, 350

Find the interquartile range of the data.