9.4

Measures of Variation (Day 1)

Range - Review

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

5, 6.25, 8, 10, 11, 12.5, 14, 15.5, 16.25, 18.5

Quartiles

The *quartiles* of a data set divide the data into _____equal parts. Another name of the *median* is the _____ _____ and it divides the data set into two halves.

1, 5, 9, 13, 15, 17, 18, 21, 25, 28, 30

Example 1

Find the median, first quartile, third quartile, and interquartile range of the data.

18, 21, 22, 24, 28, 30, 31, 32, 36, 37

The difference between the third quartile and the first quartile is called the _____ _____. The IQR represents the range of the _____ _____ of the data and is another measure of variation.

Example 2

Find the median, first quartile, third quartile, and interquartile range of the data. Afterwards, *INTERPRET THE IQR*.

23, 27, 34, 40, 42, 45, 55, 56, 62, 68, 83, 90

Example 3

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