Answer on Question #60168– Math – Statistics and Probability

Question

1. What are the minimum, first quartile, median, third quartile, and maximum of the data set?

18, 20, 11, 10, 8, 6, 12, 4

Solution

Sort the data set in the ascending order:

{4, 6, 8, 10, 11, 12, 18, 20}.

The size is $n = 8$.

Minimum=4.

The first half is {4, 6, 8, 10}; the second half is {11, 12, 18, 20}.

Median=(10+11)/2=10.5.

The median of the first half {4, 6, 8, 10} is

First quartile=(6+8)/2=7.

The median of the second half {11, 12, 18, 20} is

Third quartile=(12+18)/2=15.

Maximum=20.

Answer: 4; 7; 10.5; 15; 20.