

1. Problem

A continuous random variable X was measured 11 times. The sorted data are shown below, along with each datum's index.

i	x
1	60.171
2	60.206
3	60.714
4	60.792
5	60.848
6	60.857
7	60.906
8	60.930
9	61.065
10	61.361
11	63.221

The total of the measurements is 671.071.

- Determine the percentile rank of the value 60.714. In other words, determine what percent of data are less than or equal to 60.714.
- Determine the datum corresponding to a percentile rank of 0.455. In other words, determine x such that 45.5% of the data are less than or equal to x .
- Determine the mean of the measurements.
- Determine the median of the measurements.

2. Problem

A continuous random variable X was measured 30 times. The sorted data are shown below.

91.132	91.893	95.240	100.591	102.518	105.453
107.889	109.224	115.470	117.577	123.293	127.987
134.105	135.608	151.910	152.263	152.493	157.364
161.482	166.555	169.728	174.900	176.583	179.380
182.096	185.062	185.215	185.857	187.151	187.589

The total of the measurements is 4313.608.

- (a) Determine the percentile rank of the value 135.608. In other words, determine what percent of data are less than or equal to 135.608.
- (b) Determine the datum corresponding to a percentile rank of 0.167. In other words, determine x such that 16.7% of the data are less than or equal to x .
- (c) Determine the mean of the measurements.
- (d) Determine the median of the measurements.