

1. Problem

A continuous random variable X was measured 9 times. The sorted data are shown below, along with each datum's index.

i	x
1	52.525
2	53.281
3	53.750
4	55.946
5	56.239
6	56.909
7	57.859
8	59.089
9	59.116

The total of the measurements is 504.714.

- Determine the percentile rank of the value 59.116. In other words, determine what percent of data are less than or equal to 59.116.
- Determine the datum corresponding to a percentile rank of 0.889. In other words, determine x such that 88.9% 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 27 times. The sorted data are shown below.

91.388	91.510	91.973	93.990	94.064	94.310	95.666	96.305	96.516
96.925	97.421	98.803	101.624	101.913	102.394	102.436	102.466	102.536
103.331	104.101	104.751	105.133	106.224	107.218	108.175	108.274	109.726

The total of the measurements is 2709.173.

- (a) Determine the percentile rank of the value 97.421. In other words, determine what percent of data are less than or equal to 97.421.
- (b) Determine the datum corresponding to a percentile rank of 0.148. In other words, determine x such that 14.8% of the data are less than or equal to x .
- (c) Determine the mean of the measurements.
- (d) Determine the median of the measurements.