

1. Problem

A continuous random variable X was measured 6 times. The sorted data are shown below, along with each datum's index.

i	x
1	90.056
2	90.131
3	90.514
4	90.522
5	91.691
6	92.971

The total of the measurements is 545.885.

- (a) Determine the percentile rank of the value 90.522. In other words, determine what percent of data are less than or equal to 90.522.
- (b) Determine the datum corresponding to a percentile rank of 0.833. In other words, determine x such that 83.3% of the data are less than or equal to x .
- (c) Determine the mean of the measurements.
- (d) Determine the median of the measurements.

2. Problem

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

90.016	90.028	90.041	90.043	90.085	90.163	90.241	90.244	90.302	90.326
90.348	90.615	90.764	90.982	90.984	91.047	91.059	91.069	91.082	91.090
91.326	91.621	92.196	92.451	92.646	92.658	92.758	92.781	92.921	92.946

The total of the measurements is 2734.833.

- (a) Determine the percentile rank of the value 92.921. In other words, determine what percent of data are less than or equal to 92.921.
- (b) Determine the datum corresponding to a percentile rank of 0.9. In other words, determine x such that 90% of the data are less than or equal to x .
- (c) Determine the mean of the measurements.
- (d) Determine the median of the measurements.