

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	68.753
2	69.748
3	69.955
4	70.082
5	70.104
6	70.403
7	70.534
8	71.090
9	72.673

The total of the measurements is 633.342.

- (a) Determine the percentile rank of the value 70.104. In other words, determine what percent of data are less than or equal to 70.104.
- (b) Determine the datum corresponding to a percentile rank of 0.444. In other words, determine x such that 44.4% 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 32 times. The sorted data are shown below.

85.556	86.645	87.115	87.407	87.478	87.626	87.776	88.230
88.270	88.479	88.648	89.187	89.349	89.449	89.693	89.889
90.105	90.259	90.802	90.811	90.817	90.990	91.117	91.584
91.677	91.858	91.967	92.408	93.219	93.510	93.639	100.374

The total of the measurements is 2885.934.

- (a) Determine the percentile rank of the value 90.811. In other words, determine what percent of data are less than or equal to 90.811.
- (b) Determine the datum corresponding to a percentile rank of 0.875. In other words, determine x such that 87.5% of the data are less than or equal to x .
- (c) Determine the mean of the measurements.
- (d) Determine the median of the measurements.