

1. Problem

A continuous random variable X was measured 7 times. The sorted data are shown below, along with each datum's index.

i	x
1	126.631
2	132.168
3	137.158
4	154.937
5	155.586
6	156.145
7	167.146

The total of the measurements is 1029.771.

- (a) Determine the percentile rank of the value 126.631. In other words, determine what percent of data are less than or equal to 126.631.
- (b) Determine the datum corresponding to a percentile rank of 0.857. In other words, determine x such that 85.7% of the data are less than or equal to x .
- (c) Determine the mean of the measurements.
- (d) Determine the median of the measurements.

2. Problem

A continuous random variable X was measured 36 times. The sorted data are shown below.

92.966	93.780	93.899	93.986	94.003	94.066	94.101	94.321	94.429
94.502	94.534	94.553	94.561	94.568	94.623	94.669	94.738	94.747
94.831	94.847	94.880	94.893	94.970	95.235	95.296	95.426	95.589
95.615	95.639	95.691	95.728	95.827	95.900	95.963	96.223	96.351

The total of the measurements is 3415.95.

- (a) Determine the percentile rank of the value 94.553. In other words, determine what percent of data are less than or equal to 94.553.
- (b) Determine the datum corresponding to a percentile rank of 0.194. In other words, determine x such that 19.4% of the data are less than or equal to x .
- (c) Determine the mean of the measurements.
- (d) Determine the median of the measurements.