

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	32.080
2	32.353
3	32.509
4	32.584
5	32.660
6	32.893
7	33.040

The total of the measurements is 228.119.

- (a) Determine the percentile rank of the value 32.893. In other words, determine what percent of data are less than or equal to 32.893.
- (b) Determine the datum corresponding to a percentile rank of 0.143. In other words, determine x such that 14.3% 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 27 times. The sorted data are shown below.

72.653	79.174	80.401	81.648	82.338	83.743	87.569	89.723	94.277
99.972	100.020	109.484	110.797	111.086	111.834	112.040	115.113	116.567
129.523	133.512	134.270	135.327	145.616	146.372	151.746	152.962	163.436

The total of the measurements is 3031.203.

- (a) Determine the percentile rank of the value 129.523. In other words, determine what percent of data are less than or equal to 129.523.
- (b) Determine the datum corresponding to a percentile rank of 0.333. In other words, determine x such that 33.3% of the data are less than or equal to x .
- (c) Determine the mean of the measurements.
- (d) Determine the median of the measurements.