

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	11.195
2	11.344
3	11.466
4	11.594
5	11.845
6	11.865

The total of the measurements is 69.309.

- (a) Determine the percentile rank of the value 11.594. In other words, determine what percent of data are less than or equal to 11.594.
- (b) Determine the datum corresponding to a percentile rank of 0.167. In other words, determine x such that 16.7% 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 40 times. The sorted data are shown below.

21.888	22.051	22.298	22.352	22.594	22.729	22.735	22.787
22.848	23.209	23.214	23.224	23.257	23.544	23.719	23.817
23.832	24.020	24.039	24.059	24.108	24.112	24.281	24.311
24.328	24.361	24.401	24.413	24.504	24.533	24.563	24.574
24.600	24.608	24.652	24.727	24.791	24.793	24.851	24.901

The total of the measurements is 952.628.

- (a) Determine the percentile rank of the value 23.719. In other words, determine what percent of data are less than or equal to 23.719.
- (b) Determine the datum corresponding to a percentile rank of 0.5. In other words, determine x such that 50% of the data are less than or equal to x .
- (c) Determine the mean of the measurements.
- (d) Determine the median of the measurements.