

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	10.336
2	10.528
3	10.947
4	12.027
5	14.162
6	14.225
7	17.302
8	23.133
9	30.812

The total of the measurements is 143.472.

- Determine the percentile rank of the value 23.133. In other words, determine what percent of data are less than or equal to 23.133.
- Determine the datum corresponding to a percentile rank of 0.667. In other words, determine x such that 66.7% of the data are less than or equal to x .
- Determine the mean of the measurements.
- Determine the median of the measurements.

2. Problem

A continuous random variable X was measured 32 times. The sorted data are shown below.

21.257	21.569	22.111	22.461	22.506	24.022	24.226	24.902
25.254	25.847	26.564	26.595	27.132	27.868	28.368	28.402
30.474	31.570	32.498	32.788	33.421	33.593	33.811	33.969
34.244	36.219	36.439	36.866	37.012	37.775	37.958	38.411

The total of the measurements is 956.132.

- (a) Determine the percentile rank of the value 33.969. In other words, determine what percent of data are less than or equal to 33.969.
- (b) Determine the datum corresponding to a percentile rank of 0.438. In other words, determine x such that 43.8% of the data are less than or equal to x .
- (c) Determine the mean of the measurements.
- (d) Determine the median of the measurements.