

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	20.159
2	20.724
3	23.376
4	25.837
5	26.186
6	29.889

The total of the measurements is 146.171.

- (a) Determine the percentile rank of the value 20.159. In other words, determine what percent of data are less than or equal to 20.159.
- (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.

2. Problem

A continuous random variable X was measured 16 times. The sorted data are shown below.

63.997	66.350	68.423	68.808
69.380	70.678	77.938	79.842
90.283	94.409	107.041	111.125
114.149	121.328	126.050	139.148

The total of the measurements is 1468.949.

- (a) Determine the percentile rank of the value 90.283. In other words, determine what percent of data are less than or equal to 90.283.
- (b) Determine the datum corresponding to a percentile rank of 0.375. In other words, determine x such that 37.5% of the data are less than or equal to x .
- (c) Determine the mean of the measurements.
- (d) Determine the median of the measurements.