

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	101.077
2	135.576
3	163.935
4	164.260
5	176.255
6	177.575

The total of the measurements is 918.678.

- (a) Determine the percentile rank of the value 177.575. In other words, determine what percent of data are less than or equal to 177.575.
- (b) 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 .
- (c) Determine the mean of the measurements.
- (d) Determine the median of the measurements.

2. Problem

A continuous random variable X was measured 28 times. The sorted data are shown below.

71.705	72.298	72.352	72.594	72.729	72.735	72.787
72.848	73.209	73.214	73.224	73.257	73.544	73.719
73.817	74.020	74.039	74.112	74.311	74.328	74.361
74.533	74.563	74.608	74.652	74.791	74.793	74.901

The total of the measurements is 2062.044.

- (a) Determine the percentile rank of the value 72.729. In other words, determine what percent of data are less than or equal to 72.729.
- (b) Determine the datum corresponding to a percentile rank of 0.536. In other words, determine x such that 53.6% of the data are less than or equal to x .
- (c) Determine the mean of the measurements.
- (d) Determine the median of the measurements.