

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	10.897
2	11.229
3	11.428
4	11.452
5	14.252
6	14.374
7	14.933

The total of the measurements is 88.565.

- (a) Determine the percentile rank of the value 11.229. In other words, determine what percent of data are less than or equal to 11.229.
- (b) Determine the datum corresponding to a percentile rank of 0.714. In other words, determine x such that 71.4% 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.

116.761	124.910	125.464	127.302
146.729	148.974	149.100	156.212
163.237	176.018	178.863	180.152
184.652	186.261	186.971	187.248

The total of the measurements is 2538.854.

- (a) Determine the percentile rank of the value 149.1. In other words, determine what percent of data are less than or equal to 149.1.
- (b) Determine the datum corresponding to a percentile rank of 0.812. In other words, determine x such that 81.2% of the data are less than or equal to x .
- (c) Determine the mean of the measurements.
- (d) Determine the median of the measurements.