

1. Problem

A continuous random variable X was measured 11 times. The sorted data are shown below, along with each datum's index.

i	x
1	52.222
2	52.750
3	53.129
4	53.204
5	58.944
6	60.391
7	61.056
8	65.195
9	66.808
10	67.596
11	67.842

The total of the measurements is 659.137.

- Determine the percentile rank of the value 60.391. In other words, determine what percent of data are less than or equal to 60.391.
- Determine the datum corresponding to a percentile rank of 1. In other words, determine x such that 100% 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 60 times. The sorted data are shown below.

60.111	60.687	60.742	60.806	60.979	61.221	61.295	61.310	61.316	61.354
61.394	61.435	61.442	61.449	61.463	61.689	61.723	61.739	61.864	61.905
61.943	61.955	62.021	62.072	62.136	62.147	62.154	62.159	62.287	62.294
62.336	62.365	62.398	62.403	62.409	62.479	62.609	62.615	62.633	62.687
62.688	62.694	62.730	62.733	62.735	62.761	62.768	62.796	62.803	62.812
62.848	62.873	62.882	62.883	62.890	62.904	62.915	62.920	62.941	62.943

The total of the measurements is 3728.545.

- (a) Determine the percentile rank of the value 60.979. In other words, determine what percent of data are less than or equal to 60.979.
- (b) Determine the datum corresponding to a percentile rank of 0.1. In other words, determine x such that 10% of the data are less than or equal to x .
- (c) Determine the mean of the measurements.
- (d) Determine the median of the measurements.