

1. Problem

A continuous random variable X was measured 12 times. The sorted data are shown below, along with each datum's index.

i	x
1	60.074
2	60.107
3	60.234
4	61.030
5	62.418
6	62.500
7	63.034
8	63.457
9	63.582
10	64.135
11	64.194
12	64.207

The total of the measurements is 748.972.

- Determine the percentile rank of the value 62.5. In other words, determine what percent of data are less than or equal to 62.5.
- Determine the datum corresponding to a percentile rank of 0.167. In other words, determine x such that 16.7% 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 24 times. The sorted data are shown below.

40.035	40.499	40.608	40.776	40.878	42.274
42.380	42.811	42.902	43.163	43.692	43.922
45.092	45.220	47.087	47.361	47.434	47.546
47.934	48.024	48.820	48.998	49.309	49.387

The total of the measurements is 1076.152.

- (a) Determine the percentile rank of the value 45.092. In other words, determine what percent of data are less than or equal to 45.092.
- (b) Determine the datum corresponding to a percentile rank of 0.333. In other words, determine x such that 33.3% of the data are less than or equal to x .
- (c) Determine the mean of the measurements.
- (d) Determine the median of the measurements.