

1. Problem

A continuous random variable X was measured 9 times. The sorted data are shown below, along with each datum's index.

i	x
1	78.468
2	78.778
3	79.742
4	80.094
5	80.117
6	80.344
7	80.733
8	81.903
9	82.157

The total of the measurements is 722.336.

- (a) Determine the percentile rank of the value 81.903. In other words, determine what percent of data are less than or equal to 81.903.
- (b) Determine the datum corresponding to a percentile rank of 0.556. In other words, determine x such that 55.6% of the data are less than or equal to x .
- (c) Determine the mean of the measurements.
- (d) Determine the median of the measurements.

2. Problem

A continuous random variable X was measured 36 times. The sorted data are shown below.

60.030	60.147	61.479	62.552	63.110	63.540	65.244	65.597	66.223
66.393	66.702	67.249	67.482	67.658	67.757	68.182	68.750	69.010
69.202	70.352	70.374	70.493	70.807	71.218	71.517	71.725	75.095
76.419	77.054	78.016	78.163	79.221	79.346	79.502	79.649	79.665

The total of the measurements is 2524.923.

- (a) Determine the percentile rank of the value 79.649. In other words, determine what percent of data are less than or equal to 79.649.
- (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.