

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	94.182
2	118.976
3	129.095
4	148.486
5	158.732
6	168.385

The total of the measurements is 817.856.

- (a) Determine the percentile rank of the value 148.486. In other words, determine what percent of data are less than or equal to 148.486.
- (b) Determine the datum corresponding to a percentile rank of 0.5. In other words, determine x such that 50% 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 12 times. The sorted data are shown below.

50.007	50.265	50.441	50.845
51.103	51.334	51.711	51.817
53.295	53.968	54.467	55.129

The total of the measurements is 624.382.

- (a) Determine the percentile rank of the value 51.711. In other words, determine what percent of data are less than or equal to 51.711.
- (b) Determine the datum corresponding to a percentile rank of 0.25. In other words, determine x such that 25% of the data are less than or equal to x .
- (c) Determine the mean of the measurements.
- (d) Determine the median of the measurements.