

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	31.798
2	31.820
3	31.965
4	32.336
5	32.482
6	32.686
7	32.713

The total of the measurements is 225.8.

- (a) Determine the percentile rank of the value 32.482. In other words, determine what percent of data are less than or equal to 32.482.
- (b) Determine the datum corresponding to a percentile rank of 0.286. In other words, determine x such that 28.6% 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 18 times. The sorted data are shown below.

123.347	128.807	134.016	139.580	140.578	142.235
148.462	149.268	160.950	162.854	163.516	163.724
164.574	165.413	165.856	165.892	165.956	167.567

The total of the measurements is 2752.595.

- (a) Determine the percentile rank of the value 128.807. In other words, determine what percent of data are less than or equal to 128.807.
- (b) Determine the datum corresponding to a percentile rank of 0.389. In other words, determine x such that 38.9% of the data are less than or equal to x .
- (c) Determine the mean of the measurements.
- (d) Determine the median of the measurements.