

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	92.132
2	92.756
3	93.215
4	94.021
5	94.243
6	94.347
7	94.467
8	94.687
9	94.786

The total of the measurements is 844.654.

- (a) Determine the percentile rank of the value 94.467. In other words, determine what percent of data are less than or equal to 94.467.
- (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.

2. Problem

A continuous random variable X was measured 48 times. The sorted data are shown below.

20.184	21.416	22.037	22.103	22.563	22.688	23.190	23.210
23.993	24.110	26.258	26.707	28.167	28.553	28.722	30.611
34.369	37.644	38.319	39.848	40.774	41.645	41.880	42.852
42.903	44.573	46.475	46.732	47.007	47.443	51.250	51.480
51.914	52.400	52.526	53.773	54.424	54.535	55.987	56.269
56.738	57.799	58.154	58.484	59.063	59.076	59.441	59.543

The total of the measurements is 1989.832.

- (a) Determine the percentile rank of the value 37.644. In other words, determine what percent of data are less than or equal to 37.644.
- (b) Determine the datum corresponding to a percentile rank of 0.583. In other words, determine x such that 58.3% of the data are less than or equal to x .
- (c) Determine the mean of the measurements.
- (d) Determine the median of the measurements.