

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	63.703
2	68.636
3	74.100
4	76.338
5	77.105
6	77.246
7	79.730

The total of the measurements is 516.858.

- Determine the percentile rank of the value 74.1. In other words, determine what percent of data are less than or equal to 74.1.
- 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 .
- Determine the mean of the measurements.
- Determine the median of the measurements.

2. Problem

A continuous random variable X was measured 63 times. The sorted data are shown below.

43.644	48.819	51.071	55.871	57.547	58.788	59.343	60.483	62.606
64.802	64.921	64.921	65.319	65.535	65.657	65.925	65.969	65.978
66.232	66.865	67.207	67.819	68.065	68.704	68.937	69.001	69.235
69.432	70.107	70.173	70.269	70.334	71.099	71.211	71.883	72.011
72.116	72.364	72.449	72.490	72.654	72.815	72.982	73.471	73.654
74.328	74.587	74.715	75.324	76.071	76.551	76.633	76.872	77.359
77.421	78.027	78.219	78.697	78.994	79.289	79.300	79.413	79.493

The total of the measurements is 4382.071.

- (a) Determine the percentile rank of the value 68.704. In other words, determine what percent of data are less than or equal to 68.704.
- (b) Determine the datum corresponding to a percentile rank of 0.254. In other words, determine x such that 25.4% of the data are less than or equal to x .
- (c) Determine the mean of the measurements.
- (d) Determine the median of the measurements.