1. **Problem**

   A continuous random variable X was measured 11 times. The sorted data are shown below, along with each datum's index.

i	x
1	40.041
2	40.437
3	40.535
4	40.771
5	42.226
6	42.309
7	42.645
8	43.672
9	43.943
10	46.308
11	46.787

   The total of the measurements is 469.674.

   (a) Determine the percentile rank of the value 40.535. In other words, determine what percent of data are less than or equal to 40.535.

   (b) Determine the datum corresponding to a percentile rank of 0.182. In other words, determine x such that 18.2% 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.

81.411	82.159	85.456	86.454	89.182	89.946	90.259	90.313	93.487
93.914	94.991	95.075	95.627	96.198	97.918	99.139	102.389	103.694
103.923	105.265	105.305	105.364	105.885	107.940	110.951	111.941	112.094
112.408	112.634	113.227	114.477	117.289	118.038	118.826	119.024	119.549

The total of the measurements is 3681.752.

(a) Determine the percentile rank of the value 85.456. In other words, determine what percent of data are less than or equal to 85.456.

(b) Determine the datum corresponding to a percentile rank of 0.139. In other words, determine x such that 13.9% of the data are less than or equal to x.

(c) Determine the mean of the measurements.

(d) Determine the median of the measurements.