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	34.174
2	34.391
3	35.362
4	37.172
5	39.782
6	39.800

   The total of the measurements is 220.681.

   (a) Determine the percentile rank of the value 37.172. In other words, determine what percent of data are less than or equal to 37.172.

   (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 42 times. The sorted data are shown below.

33.400	33.682	33.688	34.237	34.440	34.936	35.725
36.027	36.342	37.344	37.349	37.538	39.163	41.378
41.665	41.673	42.405	42.485	43.993	44.105	45.403
48.103	51.134	53.006	53.335	53.383	54.782	57.391
57.940	60.499	63.020	63.558	66.321	68.386	68.749
72.049	72.208	80.773	82.174	86.961	91.604	95.894

The total of the measurements is 2208.248.

(a) Determine the percentile rank of the value 54.782. In other words, determine what percent of data are less than or equal to 54.782.

(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.