1. **Problem**

A continuous random variable X was measured 8 times. The sorted data are shown below, along with each datum's index.

i	x
1	41.172
2	42.342
3	45.359
4	45.662
5	47.342
6	49.368
7	49.697
8	49.787

The total of the measurements is 370.729.

(a) Determine the percentile rank of the value 49.368. In other words, determine what percent of data are less than or equal to 49.368.

(b) Determine the datum corresponding to a percentile rank of 0.25. In other words, determine x such that 25% 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 72 times. The sorted data are shown below.

60.001	60.002	60.006	60.027	60.062	60.108	60.257	60.279	60.498
60.576	60.902	61.262	61.378	61.541	61.760	61.966	62.792	63.270
64.093	64.576	66.407	66.494	66.635	67.208	67.696	67.926	68.041
68.515	68.567	69.097	69.107	69.451	69.669	70.027	70.359	70.836
70.881	71.028	71.432	71.525	71.540	71.804	72.102	72.610	72.639
72.876	73.857	73.921	74.030	74.543	75.054	75.594	75.908	76.231
76.533	76.571	76.733	77.160	77.170	77.181	77.584	77.638	78.275
78.717	79.013	79.021	79.362	79.563	79.649	79.707	79.749	79.801

The total of the measurements is 5048.393.

(a) Determine the percentile rank of the value 73.921. In other words, determine what percent of data are less than or equal to 73.921.

(b) Determine the datum corresponding to a percentile rank of 0.0417. In other words, determine x such that 4.17% of the data are less than or equal to x.

(c) Determine the mean of the measurements.

(d) Determine the median of the measurements.