1. **Problem**
   A continuous random variable X was measured 10 times. The sorted data are shown below, along with each datum's index.

i	x
1	80.223
2	80.531
3	81.494
4	82.669
5	83.011
6	87.131
7	87.231
8	88.949
9	91.918
10	92.101

   The total of the measurements is 855.258.

   (a) Determine the percentile rank of the value 81.494. In other words, determine what percent of data are less than or equal to 81.494.

   (b) Determine the datum corresponding to a percentile rank of 0.8. In other words, determine x such that 80% 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.

10.003	10.036	10.091	11.137	11.354	11.808	11.861
12.100	12.451	12.976	13.393	15.171	15.574	15.943
16.332	16.680	17.100	17.241	17.345	17.595	18.180
19.605	20.020	20.581	22.183	23.628	24.394	26.533
26.623	26.907	27.072	27.362	28.168	28.629	28.685
29.063	29.119	29.325	29.553	29.677	29.790	29.796

The total of the measurements is 851.084.

(a) Determine the percentile rank of the value 12.976. In other words, determine what percent of data are less than or equal to 12.976.

(b) Determine the datum corresponding to a percentile rank of 1. In other words, determine x such that 100% of the data are less than or equal to x.

(c) Determine the mean of the measurements.

(d) Determine the median of the measurements.