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	40.033
2	40.071
3	40.726
4	40.897
5	40.909
6	40.937
7	41.038
8	41.075
9	41.259
10	42.303

   The total of the measurements is 409.248.

   (a) Determine the percentile rank of the value 40.071. In other words, determine what percent of data are less than or equal to 40.071.

   (b) Determine the datum corresponding to a percentile rank of 0.7. In other words, determine x such that 70% 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 56 times. The sorted data are shown below.

40.001	40.011	40.102	40.150	40.183	40.222	40.264	40.273
40.303	40.381	40.397	40.463	40.477	40.548	40.636	40.683
40.715	40.824	40.871	40.950	41.062	41.108	41.177	41.197
41.277	41.345	41.362	41.430	41.444	41.528	41.567	41.707
41.737	41.763	42.059	42.108	42.127	42.209	42.265	42.271
42.298	42.381	42.386	42.408	42.430	42.515	42.647	42.657
42.700	42.713	42.794	42.825	42.904	42.906	42.947	42.954

The total of the measurements is 2323.662.

(a) Determine the percentile rank of the value 40.715. In other words, determine what percent of data are less than or equal to 40.715.

(b) Determine the datum corresponding to a percentile rank of 0.0714. In other words, determine x such that 7.14% of the data are less than or equal to x.

(c) Determine the mean of the measurements.

(d) Determine the median of the measurements.