



Figure 2.5
Nanopillars

smallest to largest.

To illustrate the construction of a frequency distribution, we consider data collected in a nanotechnology setting (see Exercise 2.44). Engineers fabricating a new transmission-type electron multiplier created an array of silicon nanopillars on a flat silicon membrane. The precise structure can influence the electrical properties, so the heights of 50 nanopillars were measured in nanometers (nm), or 10^{-9} meters. (See Figure 2.5.)¹

245	333	296	304	276	336	289	234	253	292
366	323	309	284	310	338	297	314	305	330
266	391	315	305	290	300	292	311	272	312
315	355	346	337	303	265	278	276	373	271
308	276	364	390	298	290	308	221	274	343

Since the largest observation is 391 and the smallest is 221 and the range is $391 - 221 = 170$, ~~the data are spread over a range of 170 nanometers.~~