Math 254: Section 1.3 – Histograms

A histogram looks similar to a bar chart, but histograms are used for quantitative data, and the data points are grouped into "bins" before graphing. There is no set rule for the number of "bins", or classes, you should use but in general the more data points you have, the larger the number of classes you should use.

Note: if the dependent variable (on the *y*-axis) is expressed in terms of a fraction or percentage of the total number of data points, the graph is called a "relative frequency histogram".

Example

Twelve software engineers in the Greater Victoria area were picked randomly from an industry list and asked what their yearly salary was (in thousands of dollars)*, with results displayed in the list below.

79, 83, 94, 88, 98, 106, 76, 71, 82, 86, 63, 90

*totally fictitious data

The mean and standard deviation of this sample data are 84.7 and 11.8 thousand dollars, respectively, and the data are plotted in the histogram below.

Figure 2: Salaries of Victoria Engineers