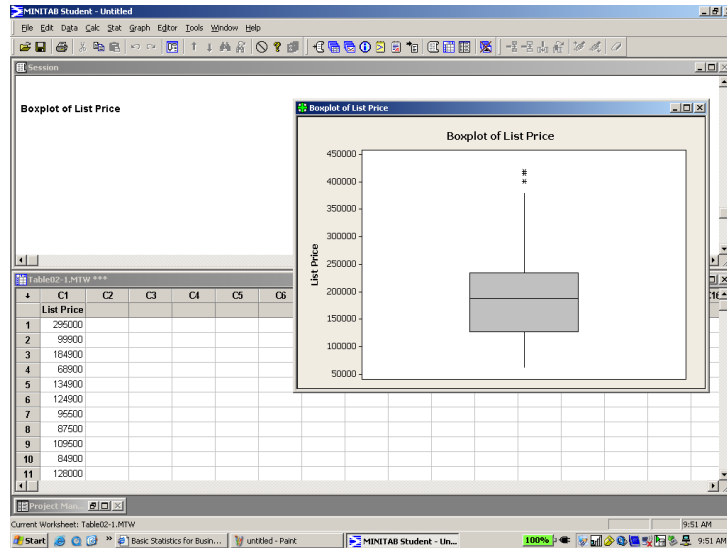


Refer to the Regina & Surrounding area data in Table 02–1. Develop a box plot of the data. What can we conclude about the distribution of the home listing prices?

MINITAB was used to develop the following chart.



We conclude that the median home list price is about \$190,000, that about 25 percent of the homes sell for less than \$230,000, and that about 25 percent sell for more than \$130,000. About 50 percent of the homes list for between \$130,000 and \$230,000. The distribution is positively skewed because the solid line above \$230,000 is somewhat longer than the line below \$130,000.

There is an asterisk (*) above the \$400,000 list price. An asterisk indicates an outlier. An outlier is a value that is inconsistent with the rest of the data. The standard definition of an outlier is a value that is more than 1.5 times the interquartile range smaller than Q_1 or larger than Q_3 . In this example, an outlier would be a value larger than found by

$$\text{Outlier} > Q_3 + 1.5(Q_3 - Q_1) = \$230,000 + 1.5(\$230,000 - \$130,000) = \$380,000$$

The MINITAB box plot indicates that there are values larger than \$400,000.

There appear to be 3 such values.

A look at the data shows that the 3 largest values are \$399,900, \$415,000 and \$418,900.

These values are high outliers.

The MINITAB commands for the box plot are:

- Import the data from the CD. The file name is Table 02–1.
- Select Graph and then Boxplots, Simple; click OK. In the dialog box select List Price as the variable and click OK.