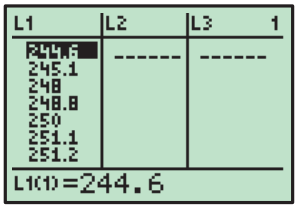
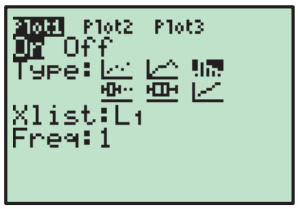
CHAPTER 20 - THE MEAN AND MEDIAN

TI-84 Plus

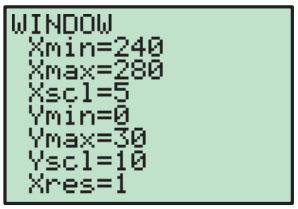
Enter the data values into **List 1**.



Press 2nd Y= (**STAT PLOT**) **1**, and set up **Plot1** as shown.

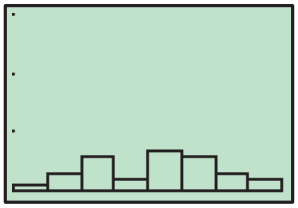


Press WINDOW , and change the window settings as shown.



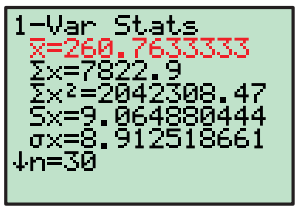
Press GRAPH to draw the histogram.

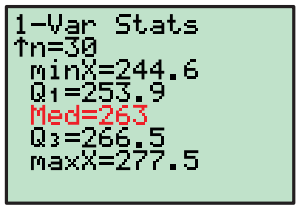
The distribution appears to be approximately symmetrical.



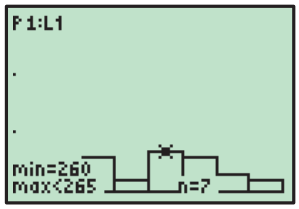
Press STAT ▶ **1 : 1-Var Stats** 2nd **1** (L1) ENTER .

The mean of the data is ≈ 260.8, and the median is 263.

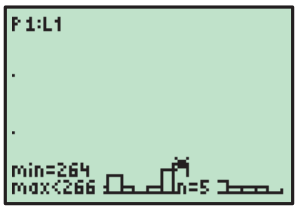




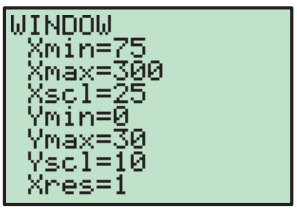
Press GRAPH to return to the histogram, then press TRACE . Scrolling across the columns, we find that the modal class is $260 \leqslant d < 265$ m.



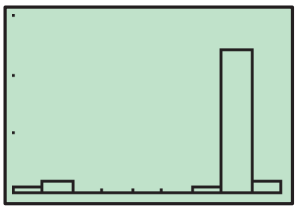
Press WINDOW , and change Xscl to 2. Press GRAPH to draw the histogram again. The modal class in this case is $264 \leqslant d < 266$ m.

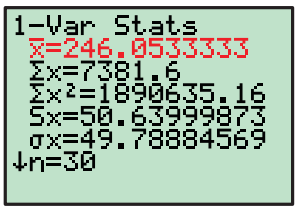


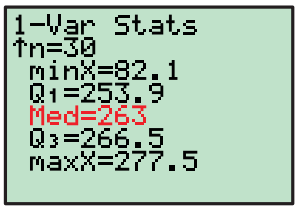
Return to the list data, and change the three shortest drives to 82.1 m, 103.2 m, and 111.1 m. Press WINDOW , and set up the screen as shown.



Press GRAPH to draw the histogram.

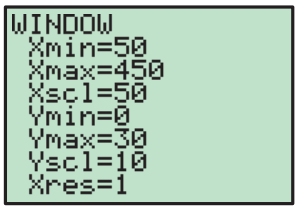




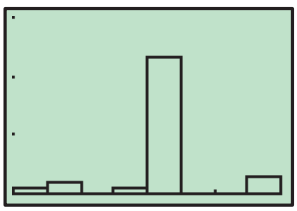


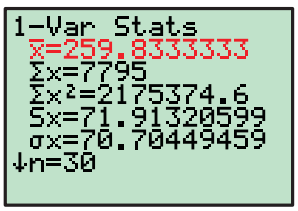
The mean has decreased to ≈ 246.1, but the median is still 263.

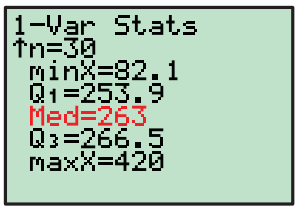
Return to the list data, and change the three longest drives to 403.9 m, 415.5 m, and 420.0 m. Press WINDOW , and set up the screen as shown.



Press GRAPH to draw the histogram.







The mean has increased to ≈ 259.8, but the median is still 263.