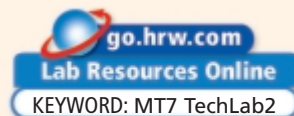




Create Box-and-Whisker Plots

Use with Lesson 9-4



The data below are the heights in inches of the 15 girls in Mrs. Lopez's 8th-grade class.

57, 62, 68, 52, 53, 56, 58, 56, 57, 50, 56, 59, 50, 63, 52

Activity

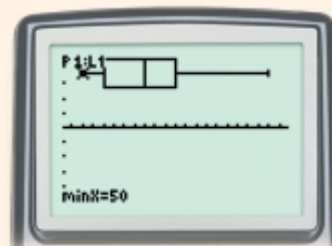
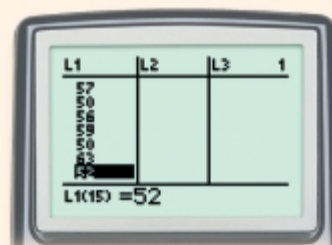
Graph the heights of the 15 girls in Mrs. Lopez's class on a box-and-whisker plot.

Press **STAT** **Edit** to enter the values into List 1 (**L1**). If necessary, press the up arrow and then **CLEAR** **ENTER** to clear old data. Enter the data from the class into **L1**. Press **ENTER** after each value.

Use the **STAT PLOT** editor to obtain the plot setup menu.

Press **2nd** **Y=** **ENTER**. Use the arrow keys and **ENTER** to select **On** and then the fifth type. **Xlist** should be **L1** and **Freq** should be 1, as shown. Press **ZOOM** **9:ZoomStat**.

Use the **TRACE** key and the **←** and **→** keys to see all five summary statistical values (minimum: **MinX**, first quartile: **Q1**, median: **MED**, third quartile: **Q3**, and maximum: **MaxX**). The minimum value in the data set is 50 in., the first quartile is 52 in., the median is 56 in., the third quartile is 59 in., and the maximum is 68 in.



Think and Discuss

1. Explain how the box-and-whisker plot gives information that is hard to see by just looking at the numbers.

Try This

1. The data below shows the number of hours slept one night for each of the 11 boys from Mrs. Lopez's 8th-grade class.

7.5, 6.5, 5, 6, 8, 7.25, 6.5, 7, 7, 8, 6.75

Make a box-and-whisker plot of this data. What are the minimum, first quartile, median, third quartile, and maximum values of the data set?