# Chapter 3 / **Example 10**
# Drawing box plots

The data for shoe sizes for group 10 are shown in the table.

| Shoe sizes | 34 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 49 |
|---|---|---|---|---|---|---|---|---|---|
| Females | 2 | 2 | 10 | 8 | 7 | 3 | 0 | 0 | 0 |
| Males | 0 | 0 | 3 | 7 | 12 | 9 | 3 | 1 | 1 |

Draw a box-and-whisker plot for the females and males and compare them.

State whether the box plots are symmetrical.

Comment on whether there are any outliers.

Draw the box plots again showing any outliers clearly.

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Press [stat] 1:Edit and press [enter]

Type the numbers 34, 36, 37, 38, etc. in the first column. Press [enter] or [▼] after each number to move to the next cell.

**Note:** *If the list contains other numbers, you can clear it by pressing* [stat] *4:ClrList and press* [enter] *. The home screen displays* ClrList. *Press* [2nd] [1] [L1] *and press* [enter]. *Press* [stat] *1:Edit and press* [enter] *to return to the table.*



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Press [▶] to move to the next column.

Enter the numbers of females in the second column.

Enter the numbers of males in the third column.



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Press [2nd] [f1] [stat plot].

Press [enter].



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Navigate through the list using [▶] [◀] [▲] [▼] keys.

Select Type: ⊡⋯, Xlist: $L_1$ and Freq: $L_2$. Choose any color.

Press [enter] after each choice.

To enter $L_2$ press [2nd] [2] [L2]



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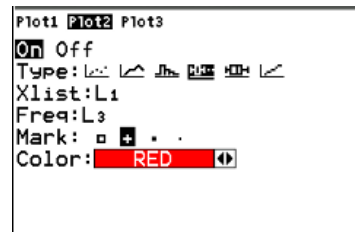
# Chapter 3 / **Example 10**
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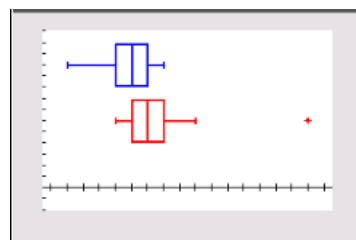| | |
|---|---|
| Navigate up to the top line, right to select Plot 2 and press enter. <br><br> Select Type: , Xlist: $L_1$ and Freq: $L_3$. Choose any color. <br><br> Press enter after each choice. <br><br> To enter $L_2$ press 2nd 2 [L2] |  |
| Press [f3] zoom 9:ZoomStat. <br><br> The GDC displays a box plot of the data. |  |
| Press [f4] trace and use ▶ ◀ to move the cursor across the box plot. Use the ▲ ▼ keys to move between the two plots. The display will change to show the maximum and minimum values, outliers, the quartiles and the median. |  |