Chapter 2 / **Example 5**

Frequency histograms

The data shown in the table was collected for Hawkmoth caterpillars, measured to the nearest cm.

Length, *l* (cm)	4	5	6	7	8	9
Frequency	19	56	74	45	5	1

Use the data to draw a frequency histogram.

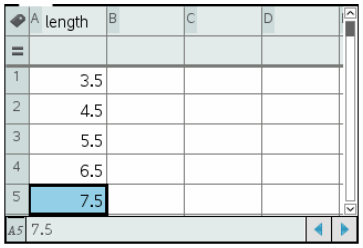
Open a new document and add a Lists & Spreadsheet page.

Type 'length' in the first cell.

Type the lower values of each of the class intervals in the first column. Type 3.5, 4.5, 5.5, … 8.5

Press enter or ▼ after each number to move to the next cell.

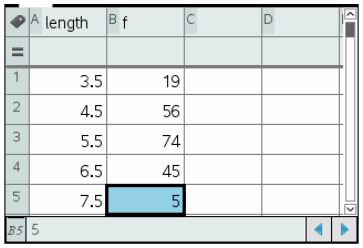
Note: *The word 'length' is a label that will be used later to create the chart. You can use any letter or name to label the list.*



Type 'f' in the cell to the right of 'length'.

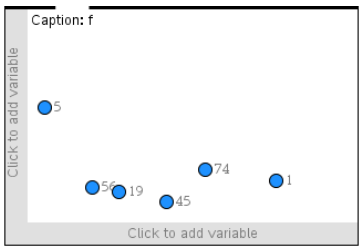
Enter the frequencies of each of the scores in the second column.

Use the ▲ ▼ ▶ ◀ keys on the touchpad to navigate the spreadsheet.



Add a new Data & Stastistics page to your document by pressing ctrl doc▾ (+page) 5:Add Data & Statistics.

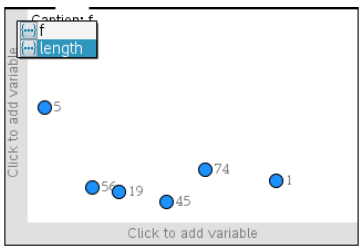
Note: *Ignore the screen display that you see when this page first opens.*



Press menu 2:Plot Properties |5: Add X Variable.

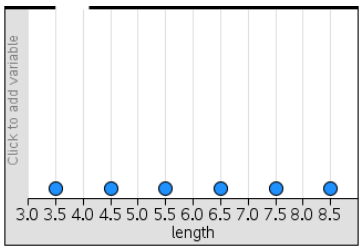
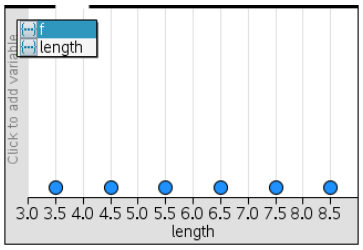
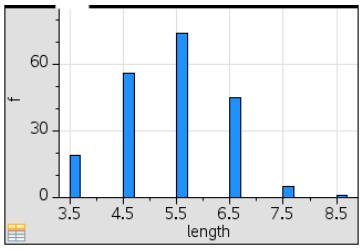
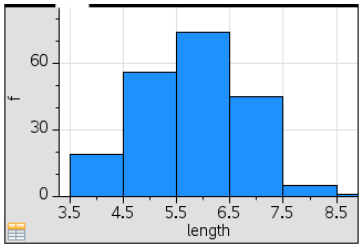
The GDC displays the two variables you created in the spreadsheet: 'f' and 'length'.

Select 'length' with the touchpad.



Chapter 2 / **Example 5**

Frequency histograms

The GDC displays the values of length that you entered in the spreadsheet on the *x*-axis.	
Press menu 2:Plot Properties | 9: Add Y Summary List. The GDC displays the two variables you created in the spreadsheet: 'f' and 'length'. Select 'f' with the touchpad. *The term 'summary list' on this GDC is used to denote frequency.*	
The GDC displays a histogram of the data as this is the default display.	
To get the bars of the histogram right, press menu 2:Plot Properties | 2: Histogram Properties | 2:Bin Settings | 1:Equal Bin Width. Set the width to 1 and the alignment to 3.5.	
You can also adjust the *x*-scale by dragging its right hand end until the full width of the final bar can be seen.