

Histogram, Stem Plots, and Strip Charts (or Dot Plots)

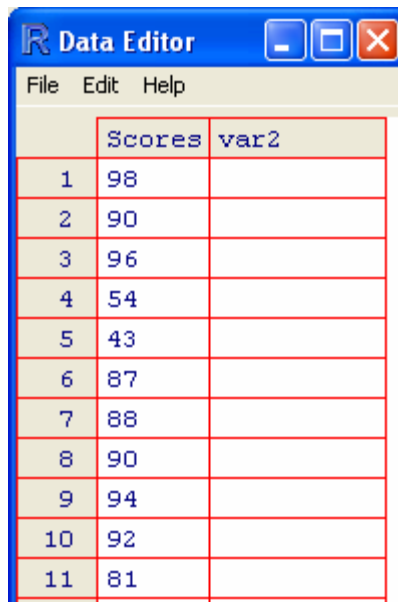
Example: The scores of an exam were recorded as the followings:

98, 90, 96, 54, 43, 87, 88, 90, 94, 92, 81, 79, 85, 91, 79, 88, 89, 83

How to make histogram, stemplot, and strip chart to describe this data?

Data Entry:

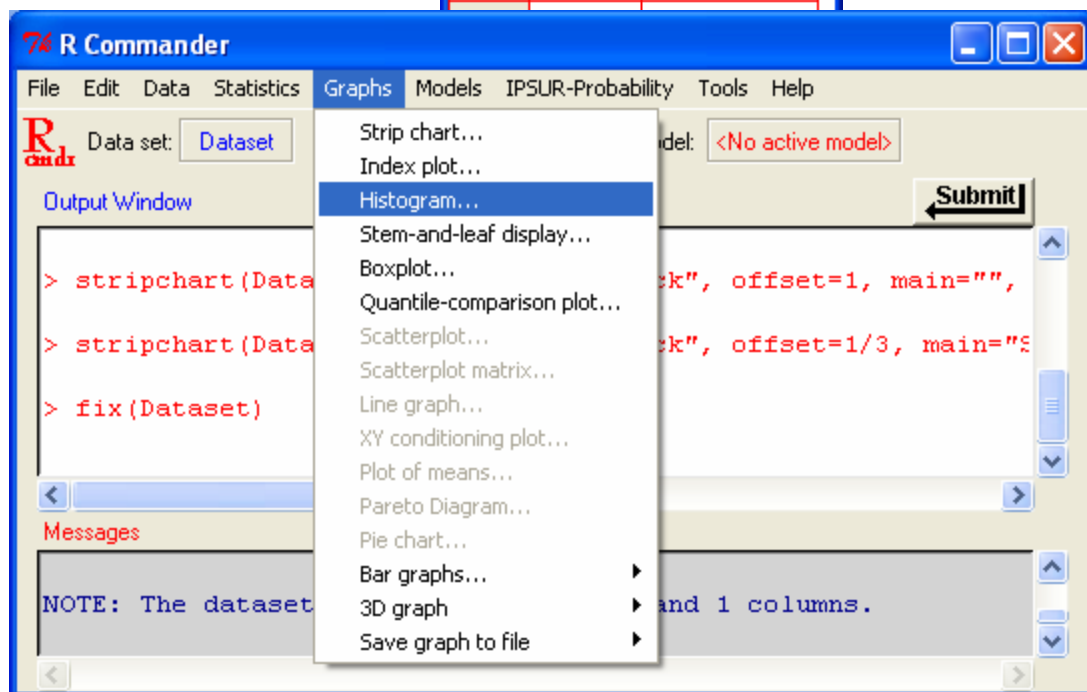
The data can be entered in the first column of the Data Editor and variable name can be changed to Scores by clicking the heading var1 on top of the first column and change the variable name to Scores. The data would appear as the following.



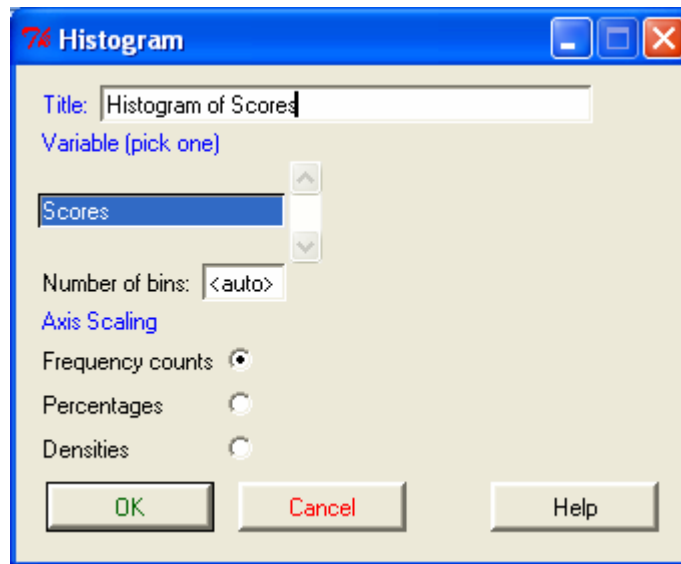
var1	Scores	var2
1	98	
2	90	
3	96	
4	54	
5	43	
6	87	
7	88	
8	90	
9	94	
10	92	
11	81	

Histogram

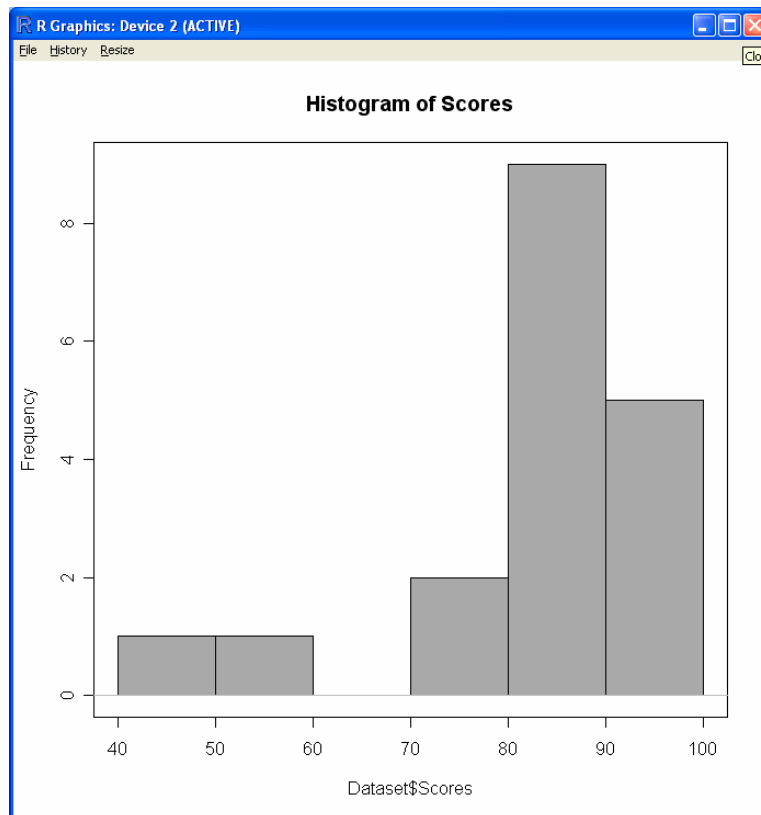
- 1) In R Commander, click on **Graphs** and select **Histogram...**



- 2) In the Histogram dialog box enter the chart title in the Title box. One can specify number of bins for the chart or use <auto> for default setting, and then select Scaling. In this example Frequency counts is chosen. And then, click OK.



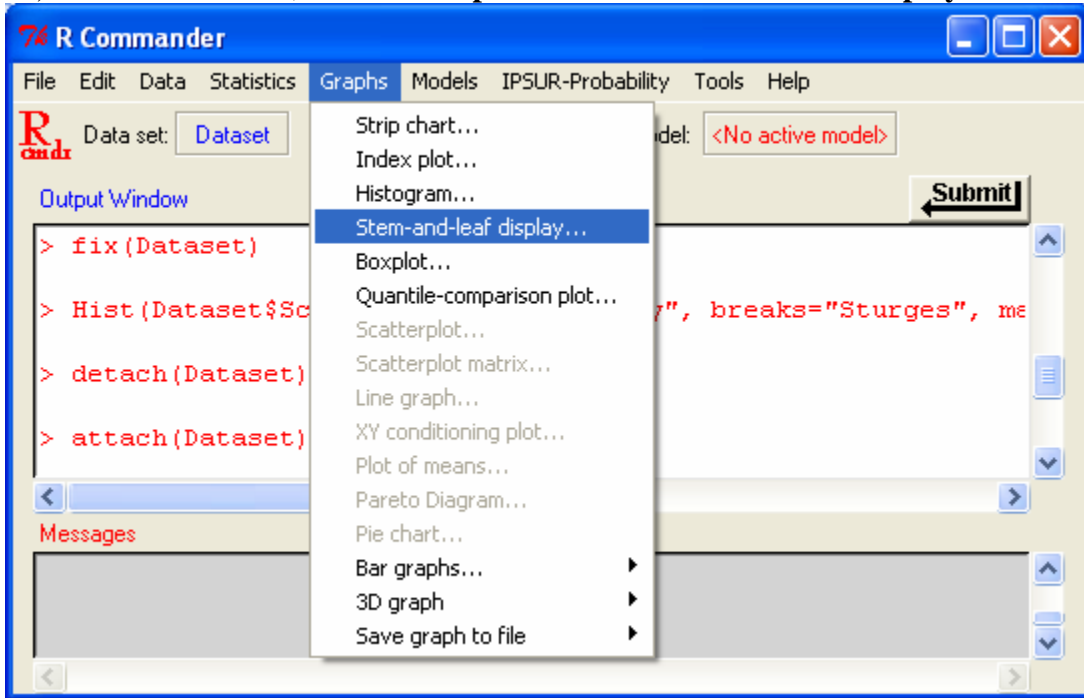
Result:



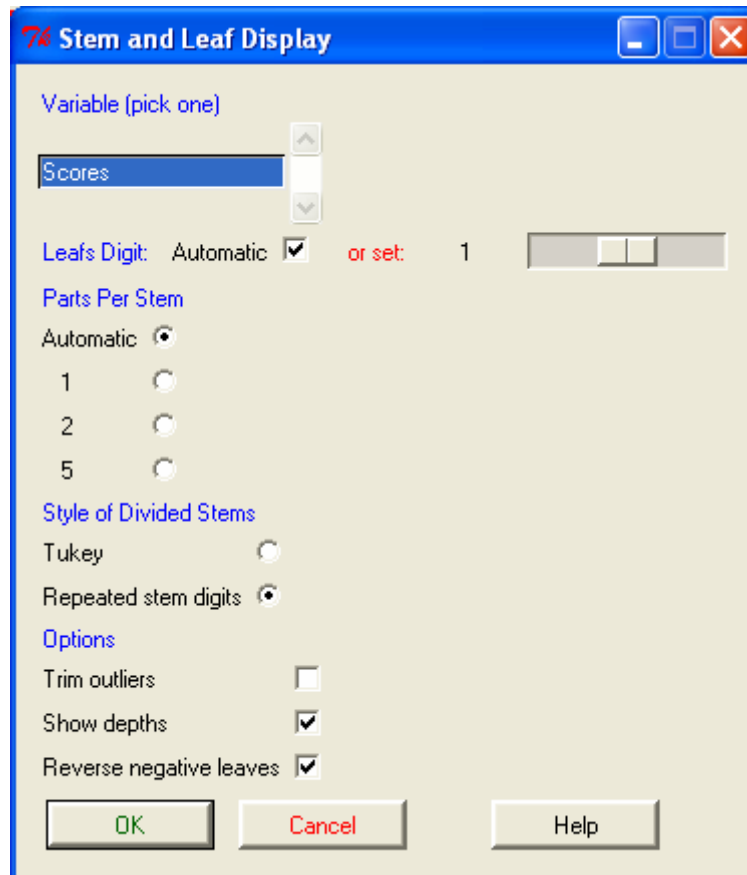
Label for horizontal axis can be changed to just "Scores" by using the instructions in this document: http://www.cc.yosu.edu/~ghchang/class/s3743/R_ProblemHistogramLabel.pdf

Stemplot

- 1) In R Commander, click on **Graphs** and select **Stem-and-leaf display ...**



- 2) In the Stem-and-leaf dialog box, check **Repeated stem digits** and uncheck **Trim outliers** as shown in the following figure. Click OK.



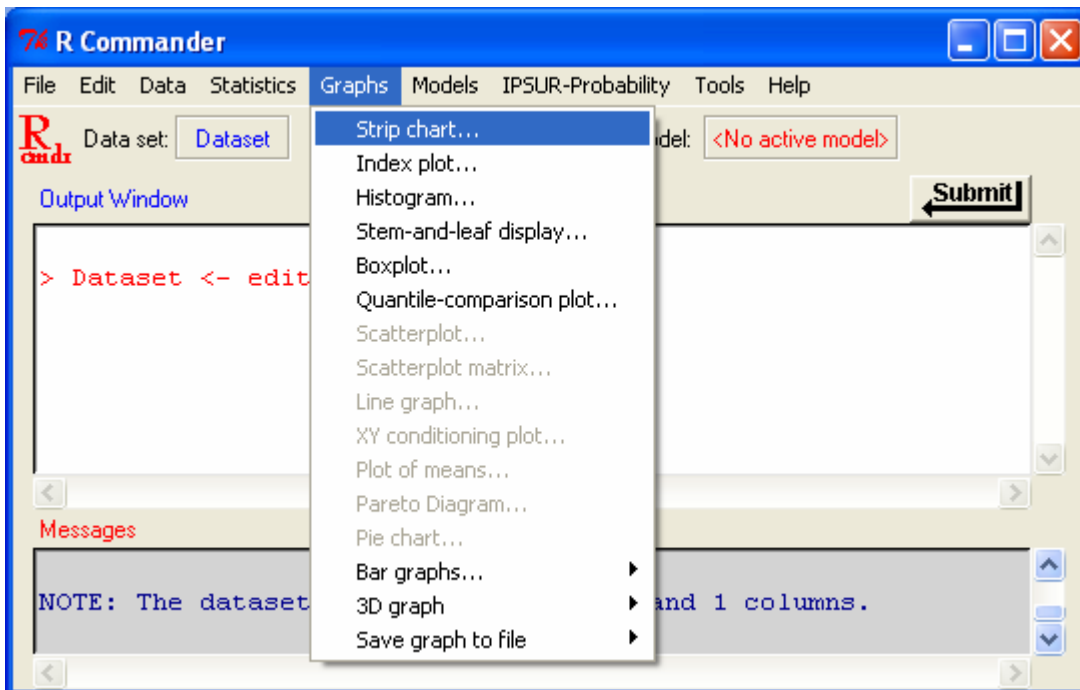
Result:

```
1 | 2: represents 12
  leaf unit: 1
      n: 18

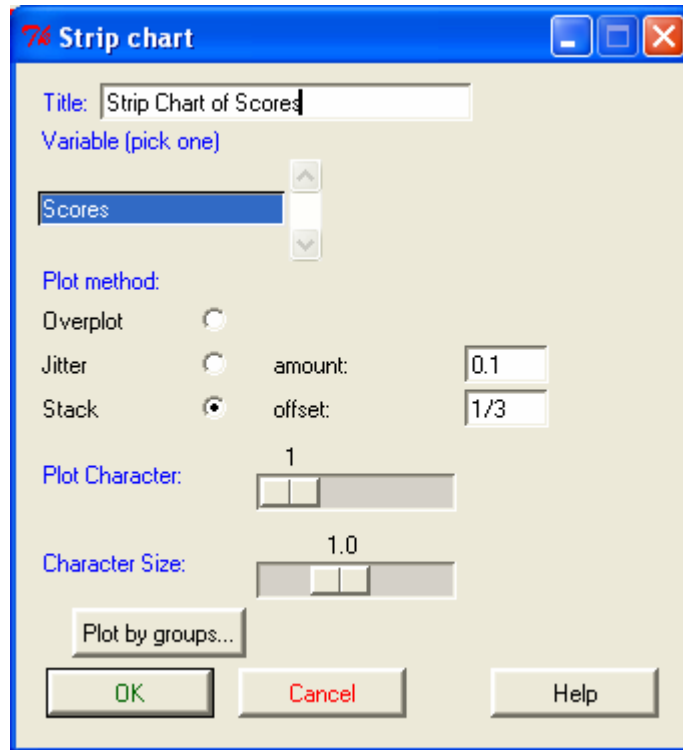
  1    4 | 3
    4 |
  2    5 | 4
    5 |
    6 |
    6 |
    7 |
  4    7 | 99
  6    8 | 13
(5)   8 | 57889
  7    9 | 00124
  2    9 | 68
```

Strip Chart (Dot Plot)

1) Select **Graphs** from menu bar and select **Strip chart ...** option.



- 3) In the Strip chart dialog window, enter chart title, choose **Stack** bullet, and specify the **Stack offset** for dot plot, and click **OK**.



Result:

