Making a Histogram using Minitab

1. Put your data values in one of the columns of the Minitab worksheet.

2. Add a variable name in the gray box just above the data values.

3. Click on "Graph" and then click on "Histogram".

4. Make sure "Simple" is highlighted and then click on "OK".

5. Choose the variable you want to graph and click on "Select".

6. Click on the "Scale" button, click on the "Gridlines" tab, click on the circle next to "Y major ticks", and click on "OK". This step adds horizontal gridlines to the graph.

7. Click on the "Labels…" box.

8. Type in a description of your data in the box next to "Title:".

9. Type in a note saying you created the histogram in the box next to "Subtitle 1:".

10. Click on "OK" in that window and click on "OK" in the next window.

11. To change the color of the bars, double click on the bars and choose "Edit Bars". Under "Fill Pattern", click on the circle next to "Custom", then click on the triangle next to "Background color", and choose a color from the options shown. The default bar color may be converted to black by a black and white printer, and then you can't tell where one bar ends and the next one begins. Thus choosing a very light color is a good idea. Then click on "OK".

12. To change the number of classes, double click on the bars and choose "Edit Bars". Then click on the "Binning" tab. Under "Interval Definition" click in the circle to the left of "Number of intervals" and type the number of intervals you would like in the box to the right of "Number of intervals". Then click on "OK".

If the first or last interval is empty, double click on the bars again and click on the "Binning" tab. Then click on the circle next to "Midpoint/Cutpoint positions" and adjust the numbers in the box below to produce the correct number of intervals such that the first and last intervals are not empty. You may have to repeat this operation a few times to obtain a satisfactory result.

13. If you have a Microsoft Word document open, you can right click on the graph and choose "Send Graph to Microsoft Word" and the histogram will appear in your Word document. If you are working in another program, click in the gray area outside the graph. Choose the "Edit" tab at the very top of the window and then choose "Copy Graph". You now will be able to copy your histogram into the document you are creating.

Example (Navidi & Monk, *Elementary Statistics*, 2nd edition, #29 p. 65, last 3 columns) The table below shows a sample of 2013 BMW prices in thousands of dollars.

30.8	86.2	60.1	68.8	59.8	82.4
62.7	53.4	140.7	32.5	114.7	44.0
38.9	90.2	31.2	64.2	43.3	77.6

Open Minitab and enter the prices under C1. A portion of the entered data is shown below left. Minitab did not like having a comma between "$1000" and "s", so I left out the comma.

Now click on "Graph" and "Histogram". Make sure "Simple" is chosen and click on "OK".

↓	C1	C2
	Price	
1	30.8	
2	86.2	
3	60.1	
4	68.8	
5	59.8	
6	82.4	
7	62.7	
8	53.4	
9	140.7	
10	32.5	

Click in the box under "Graph variables:", choose C1 from the box at left and click on the "Select" button.

Click on the "Labels" button. Enter a description of the graph like "Histogram of 2013 BMW Prices" under "Title" and then put "created by your name" under "Subtitle 1".

Click on the "OK" button in that window, and on the "OK" button in the window below.

You can change the horizontal or vertical axis titles at this point. If, for example, you click on the horizontal axis title, "Price" will appear in a box near the bottom under the word "Text:". You can now insert the units, "($ thousands)", next to "Price" in the box. Then click on "OK".

Now double click on the bars and choose "Edit Bars". Under "Fill Pattern", click on the circle next to "Custom", then click on the triangle next to "Background color". Choose a light color from the options shown. I chose light cyan.

Next click on the tab that says "Binning". I wanted to have just four classes, so I clicked in the circle next to "Number of intervals:" and then in the box to the right I entered the number four. Then click on "OK". The resulting graph is shown below.

If you have a document open in Word, you can right click on the graph and then choose "Send Graph to Microsoft Word". If you are working with another program, you can right click on the gray area and choose "Copy Graph". Then you can past the histogram into the document you are creating.

Histogram of BMW Prices
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