

## SPSS Assignment 2: Scatter Plots & Correlation Coefficients

This and subsequent tutorials assume you have completed previous tutorials. In this tutorial you will learn more about entering and working with data as well as how to create a scatter plot and calculate correlation coefficients.

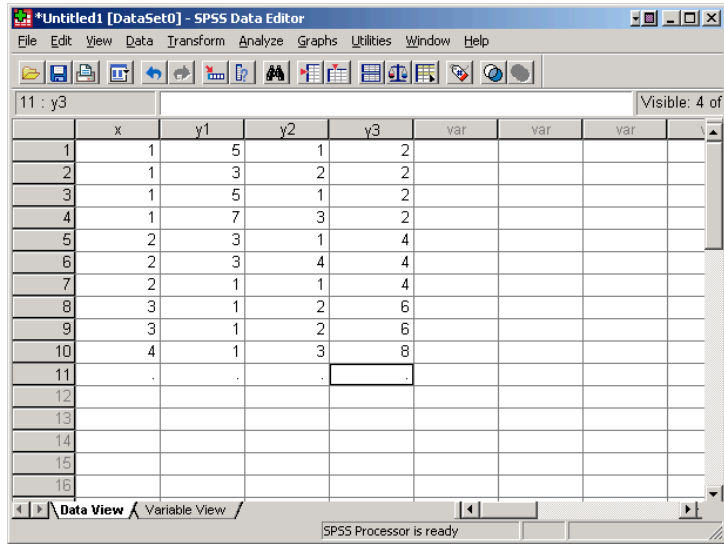
Start SPSS as before and go to the data entry screen, **SPSS Data Editor**. In the first four columns, enter the data from problem 9 on page 137 of your text. You'll want to enter the  $x$  and  $y$  values from part a) and the  $y$  values from part b and c since the  $x$  data is the same for all three parts. Your screen should look something like this: (I'm using an older version of Windows so there may be some minor differences.)

	VAR00001	VAR00002	VAR00003	VAR00004	var	var	var	
1	1.00	5.00	1.00	2.00				
2	1.00	3.00	2.00	2.00				
3	1.00	5.00	1.00	2.00				
4	1.00	7.00	3.00	2.00				
5	2.00	3.00	1.00	4.00				
6	2.00	3.00	4.00	4.00				
7	2.00	1.00	1.00	4.00				
8	3.00	1.00	2.00	6.00				
9	3.00	1.00	2.00	6.00				
10	4.00	1.00	3.00	8.00				
11	.	.	.	.				
12								
13								
14								
15								
16								

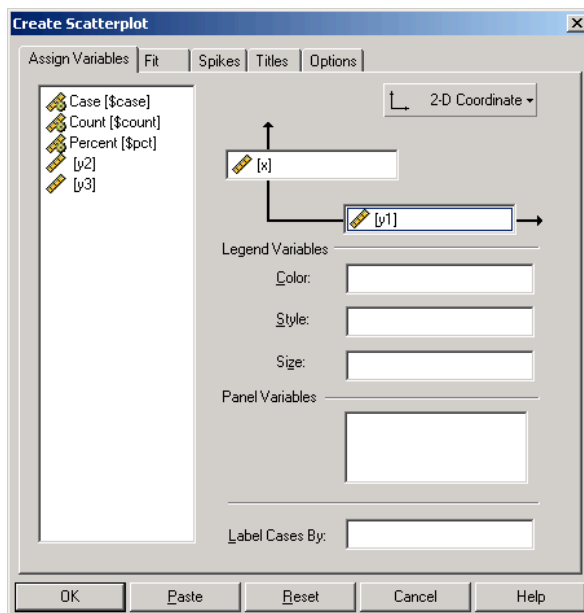
Click on the **Variable View** tab at the bottom. Change the variable names to  $x$ ,  $y_1$ ,  $y_2$ , and  $y_3$  and the number of decimal places to 0 for each. Your screen will look something like this:

	Name	Type	Width	Decimals	Label	Values	Missi
1	x	Numeric	8	0		None	None
2	y1	Numeric	8	0		None	None
3	y2	Numeric	8	0		None	None
4	y3	Numeric	8	0		None	None
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							

When you return to the **Data View** tab, your screen will look something like this:



From the **Graphs** menu, select **Interactive** → **Scatter Plot...** Drag **x** to the vertical axis and **y1** to the horizontal axis as shown here:

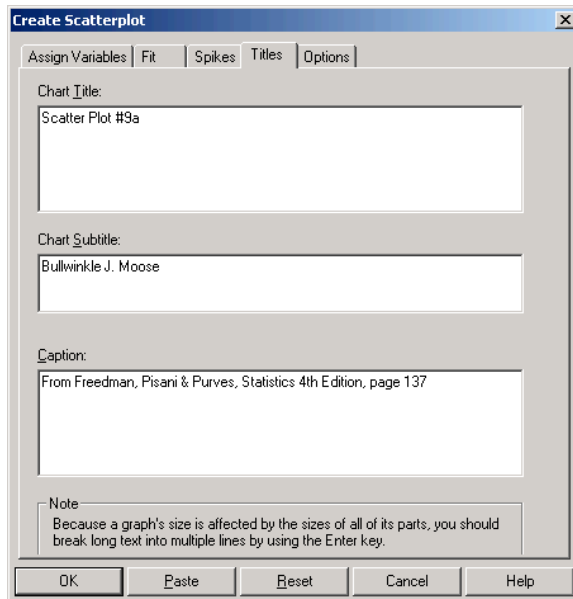


Go to the Titles tab and enter the following:

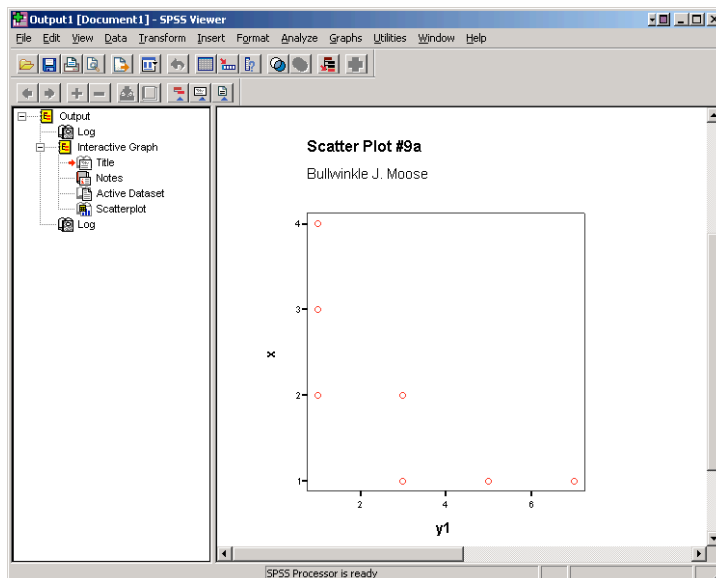
**Chart Title:** Scatter Plot #9a

**Chart Title:** *Your name*

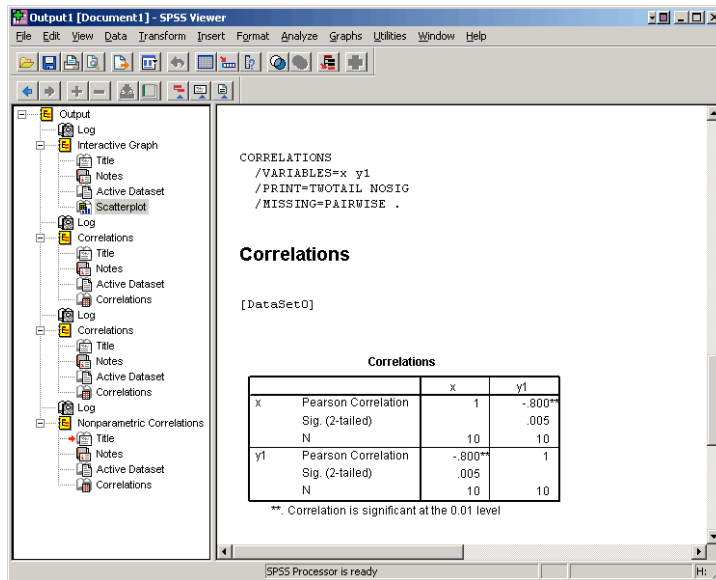
**Caption:** From Freedman, Pisani & Purves Statistics 4th Edition, P137.



Then click on **OK**. This will generate the scatter plot shown here.



From the **Analyze** menu, select **Correlate**→ **Bivariate**.... Select **x** and **y1** and click on **OK**. This will add correlation information to your output. It should be  $-0.800$  if you didn't make any mistakes entering the data.



Print this page. You'll be turning it in.

Now, from the **File** menu on the **SPSS Data Editor Page**, select **Save**. Save the data to the desktop and exit SPSS.

Double-click on the data file you saved to the desktop. This should open SPSS and restore the data. Using the approach describe above, find the correlation coefficients for **x** and **y2** and for **x** and **y3**. Write these on you printout being careful to label each and turn this in.