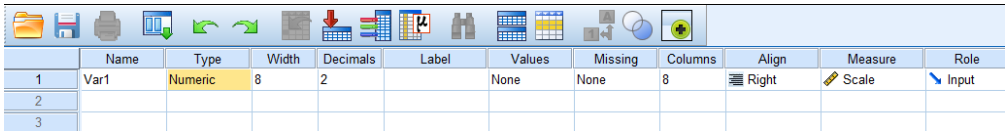
SPSS Report

[27/8/2021]

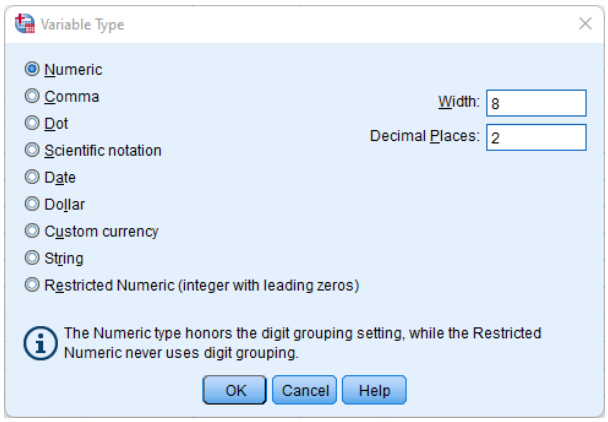
Variable View



	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure	Role
1	Var1	Numeric	8	2		None	None	8	Right	Scale	Input
2											
3											

`Name` - Name of the variable.

`Type` - The types of values the variable can take.



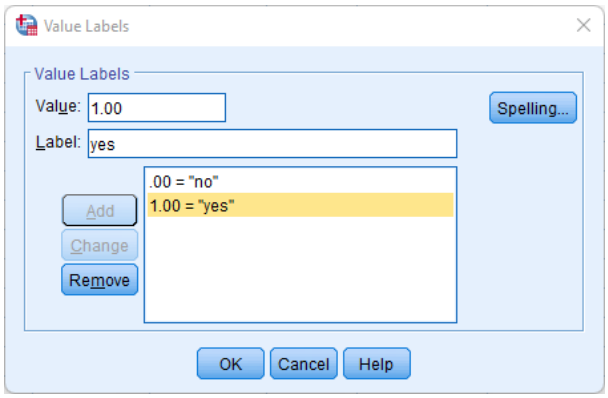
Variable type selector popup window

`Width` - Specifies the column width for the display of variables in the Data Editor.

`Decimals` - No. of decimal places permitted by the variable.

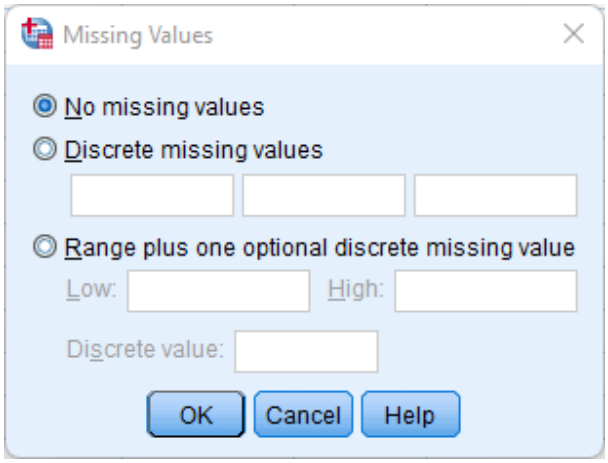
`Label` - Description for the variable.

`Values` - Values which can be taken by the variable.



Value editor window

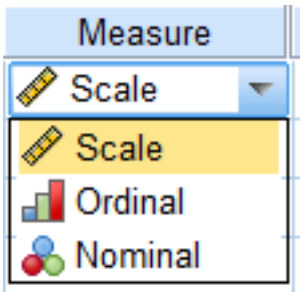
`Missing` - Specify what is to be entered for a value that is missing for a variable in a case.



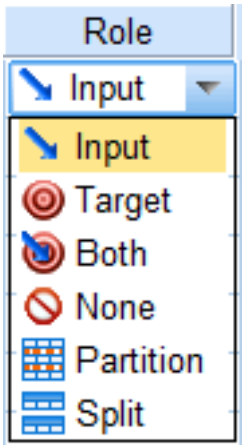
Missing values editor

`Align` - Alignment of the values in the cell of the Data Editor view.

`Measure` - SPSS measurement levels are limited to nominal(i.e. categorical), ordinal(i.e. ordered like 1st, 2nd, 3rd…), or scale. Essentially, a scale variable is a measurement variable.



`Role` - Specifies the variable's role in analysis.



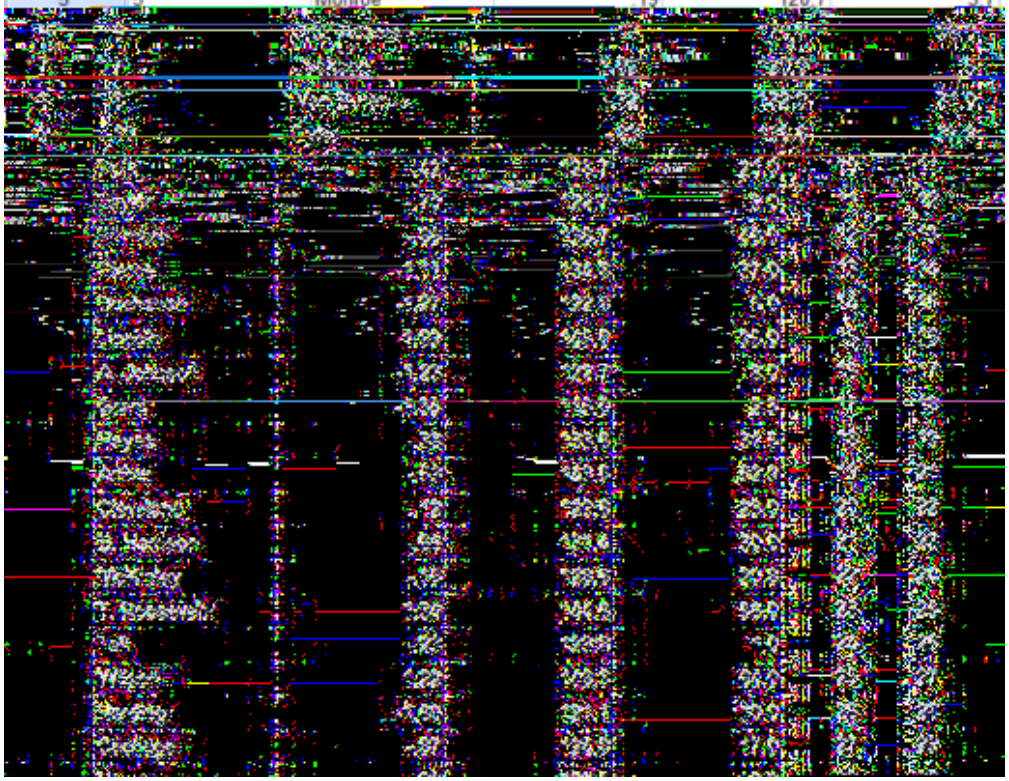
Classwork

Variable View

	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure	Role
1	President	String	25	0		None	None	8	Left	Nominal	Input
2	MB_Rating	Numeric	25	2	M B Rating of p...	None	None	8	Right	Scale	Input
3	IQ	Numeric	25	1		None	None	8	Right	Scale	Input

Data View

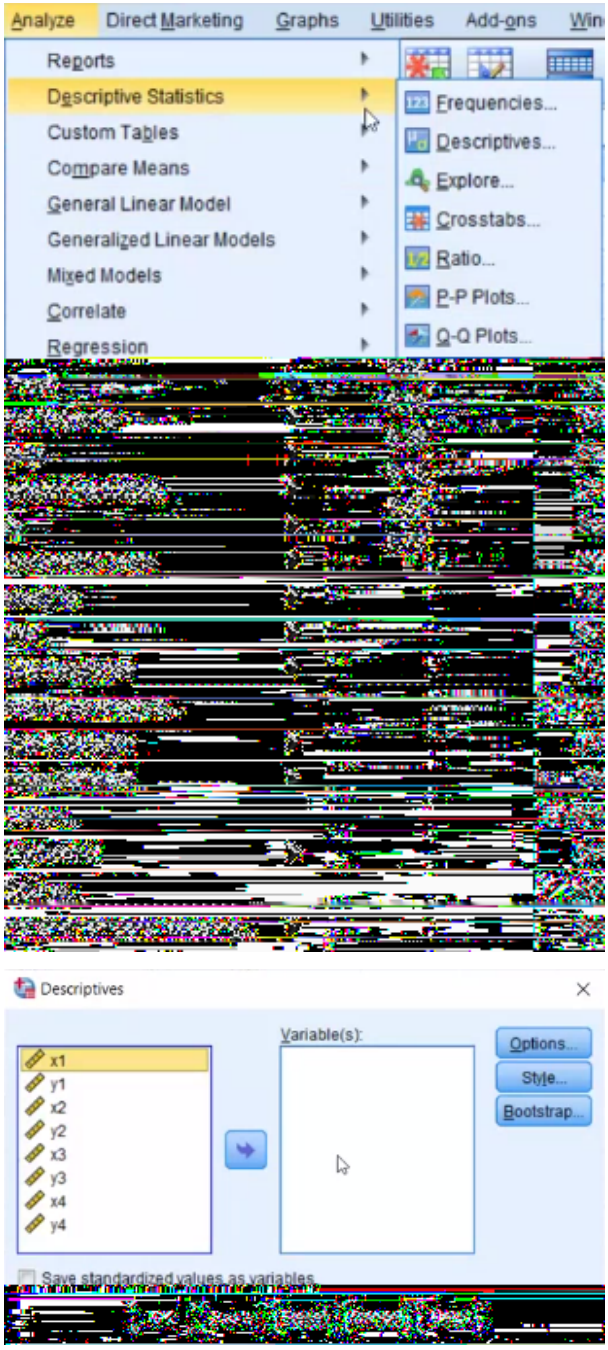
	V1	president	mbrating	IQ	Openness
1	1	Washington	1.87	130.0	14.0
2	2	J. Adams	.59	150.0	61.0
3	3	Jefferson	1.52	160.0	99.1
4	4	Madison	.23	150.0	62.0
5	5	Monroe	.19	120.7	3.7



[1/9/2021]

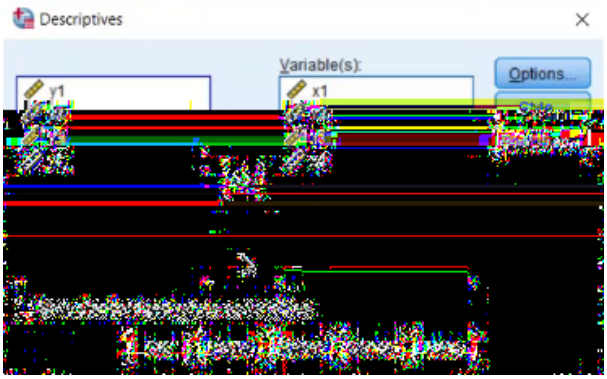
Descreptive Analysis

The Descriptives menu lies under `Analyze` ⟶ `Descriptive Statistics` ⟶ `Descriptives...`

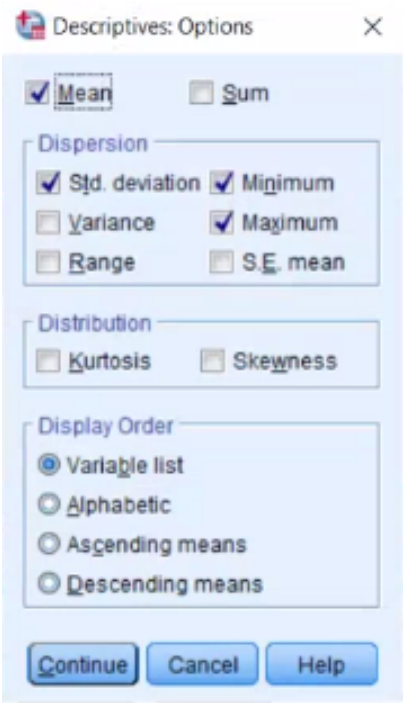


The descriptives popup window

Once the window is open, select the variables you want to perform the analysis on and click the arrow in the middle to move them to the variables side.



The descriptives window after moving the variables



Options available for desvriptive analysis

Chart Builder

To build a graph, `Chart Builder` is used which is available under `Graphs` ⟶ `Chart Builder`

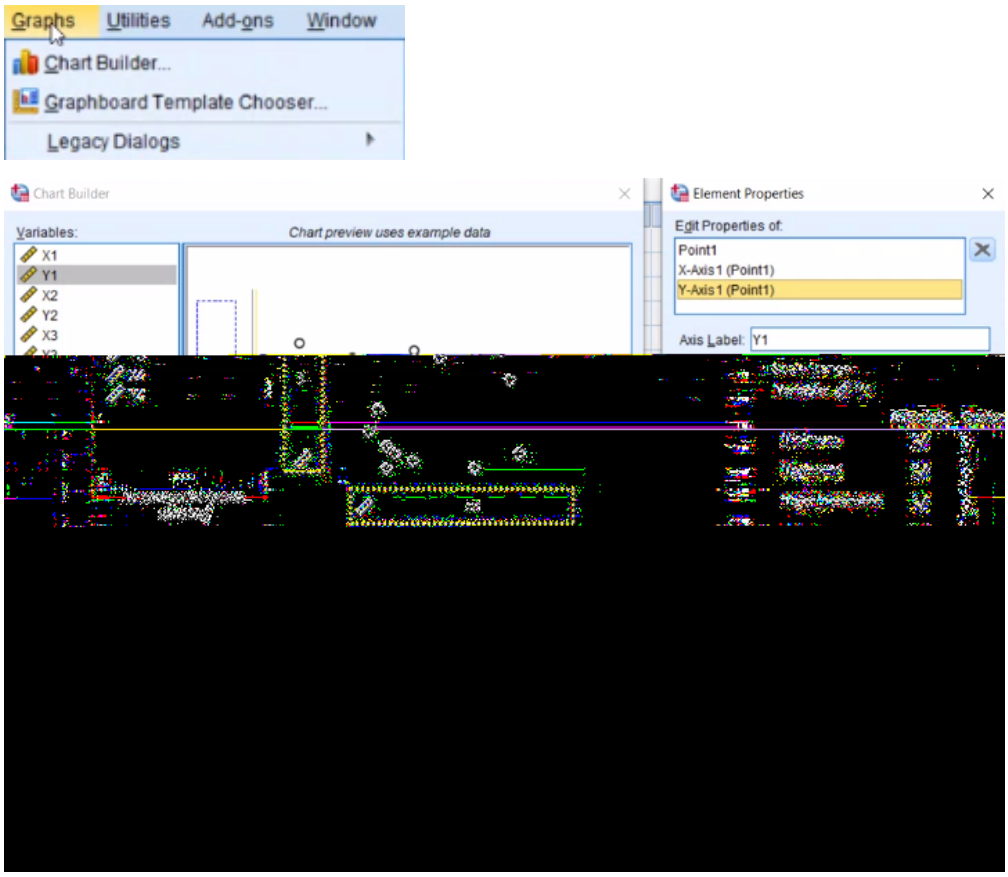


Chart Builder Window

`Variables` - A list of variables which can be used to build the graph.

`Gallery` - Types of plots for the user to choose from.

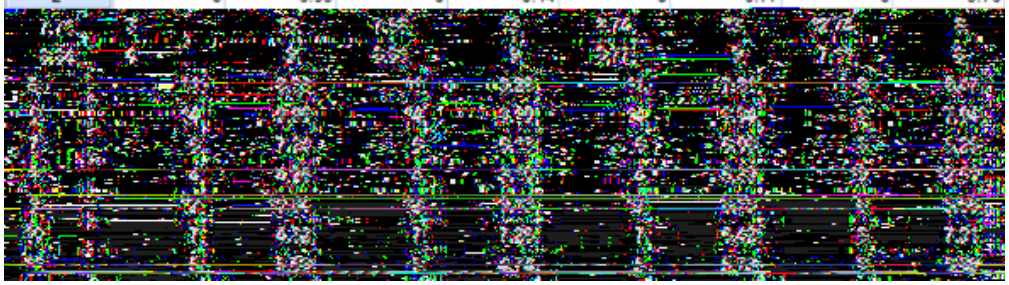
`Element Properties` - This window allows the variables to be modified in the graph.

Scatterplot Alternate Method `Graphs` $\longrightarrow$ `Legacy Dialogs` $\longrightarrow$ `Scatter/Dot...`

Classwork

Data View

	x1	y1	x2	y2	x3	y3	x4	y4
1	10	8.04	10	9.14	10	7.46	8	6.58
2	8	6.95	8	8.14	8	6.77	8	5.76



Output View

Descriptives

[DataSet1] C:\Users\Abhirup Moitra\Pictures\anscombe.sav

Descriptive Statistics

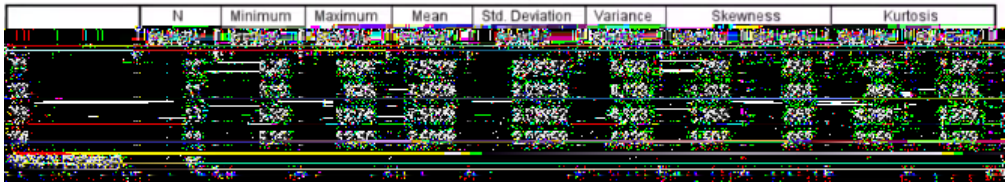
	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
X1	11	4.00	14.00	9.0000	3.31662	11.000	.000	.661	-1.200	1.279
X2	11	4.00	14.00	9.0000	3.31662	11.000	.000	.661	-1.200	1.279
X3	11	4.00	14.00	9.0000	3.31662	11.000	.000	.661	-1.200	1.279
X4	11	8.00	19.00	9.0000	3.31662	11.000	3.317	.661	11.000	1.279
Valid N (listwise)	11									

```
DESCRIPTIVES VARIABLES=Y1 Y2 Y3 Y4
  /STATISTICS=MEAN STDDEV VARIANCE MIN MAX KURTOSIS SKEWNESS.
```

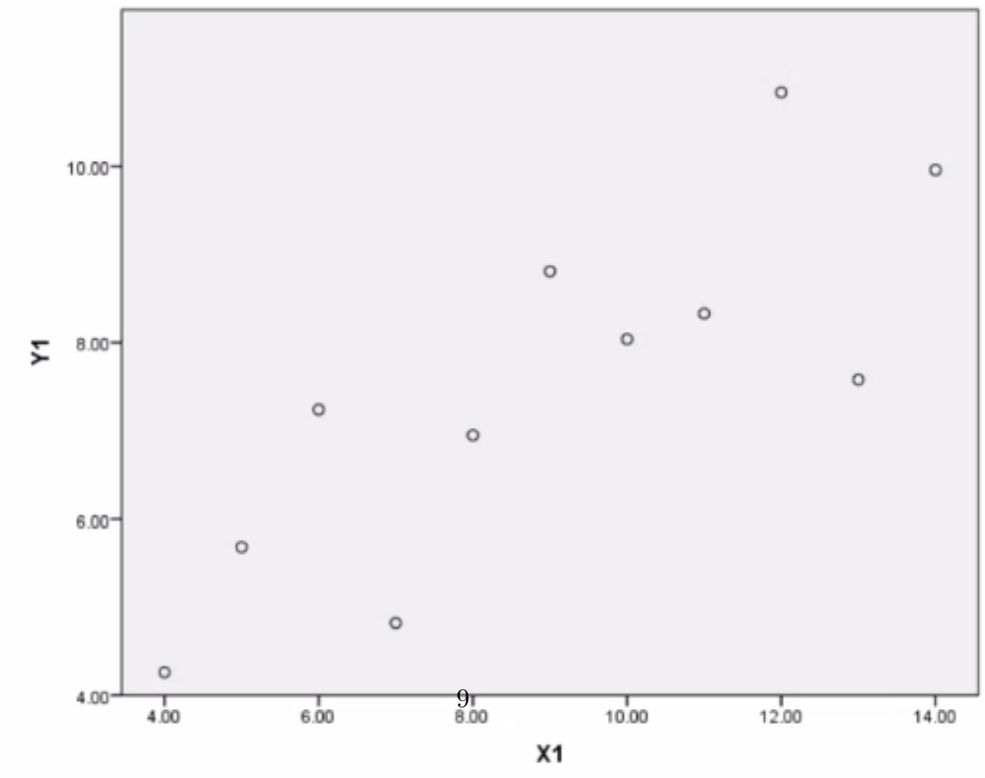
Descriptives

Descriptive Statistics

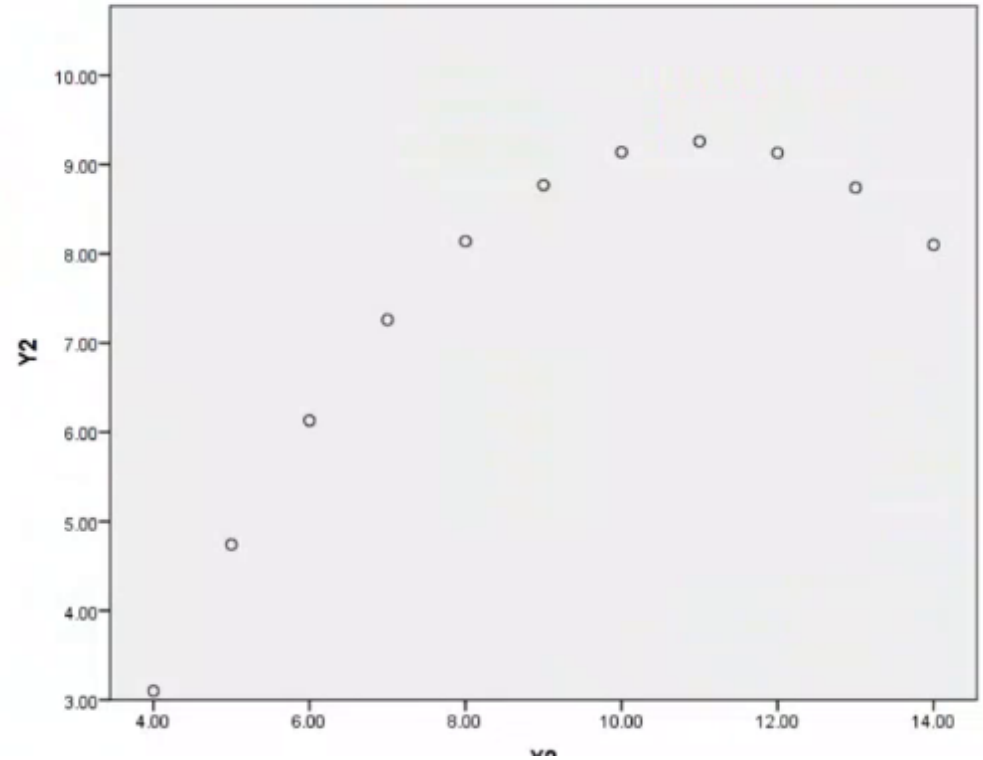
	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness	Kurtosis

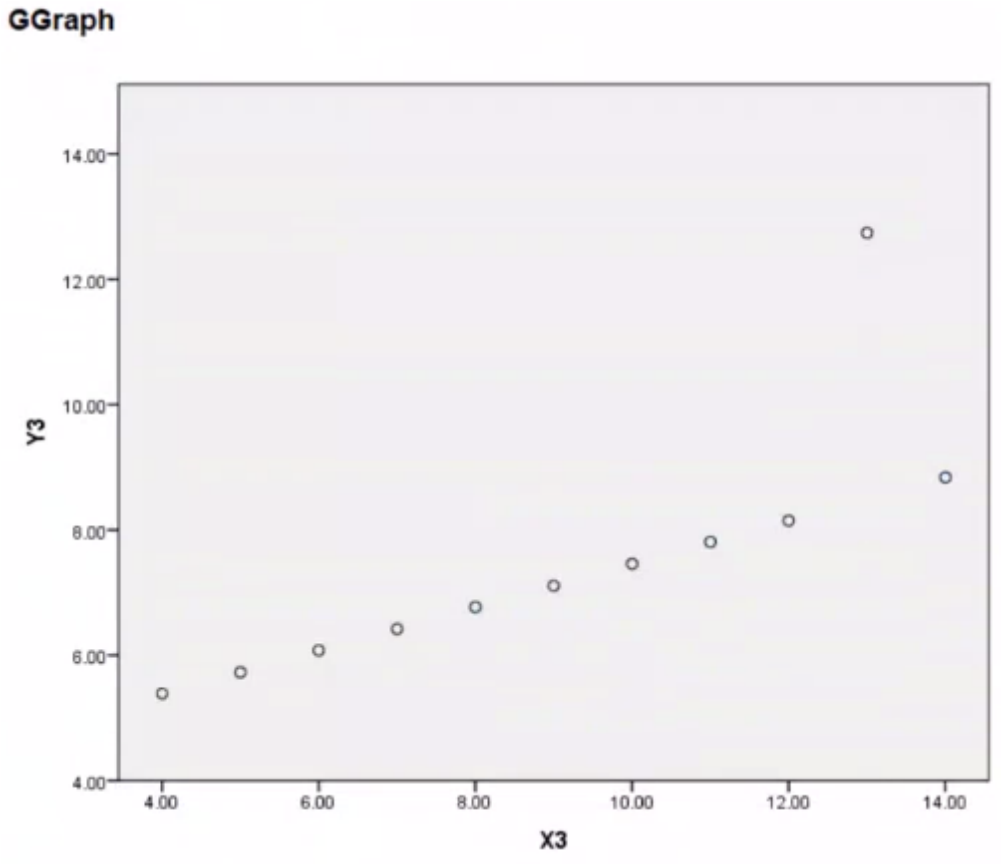


GGraph



GGraph

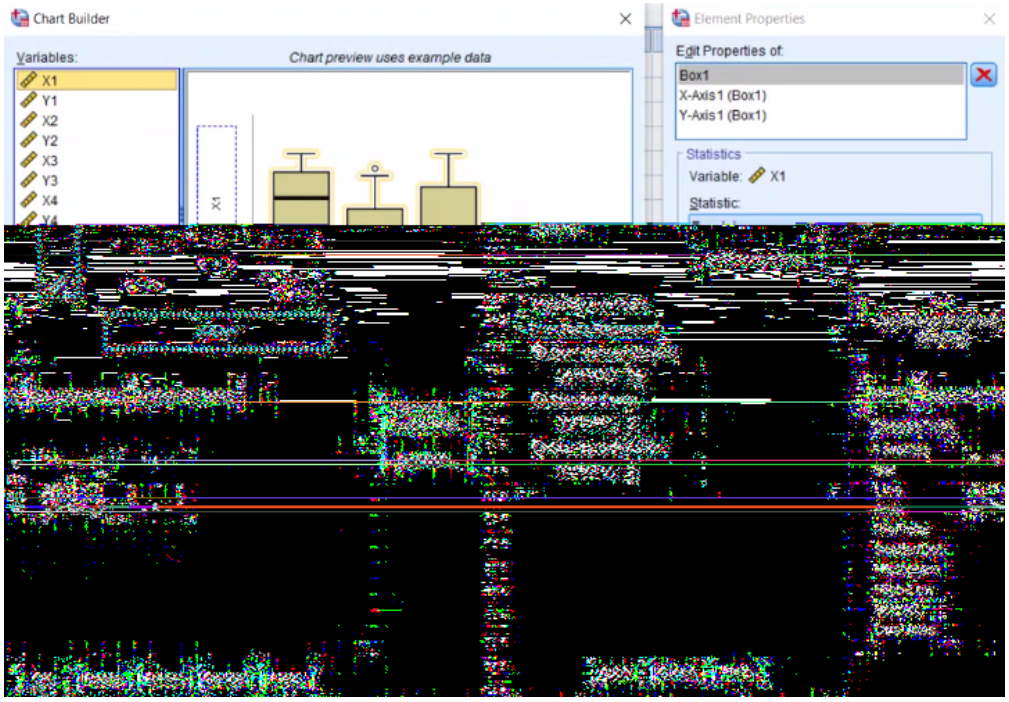




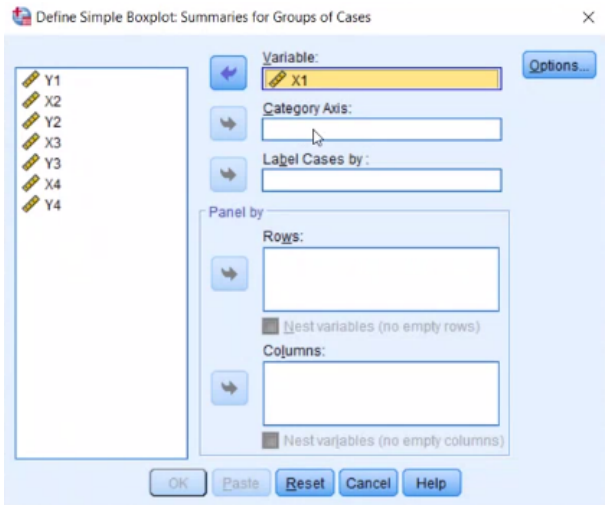
[3/9/2021]

Outlier Detection with Boxplots

The `Boxplot` option is available in `Chart Builder` under `Gallery`



Alternate Method `Graphs` ⟶ `Legacy Dialogs` ⟶ `Boxplot`



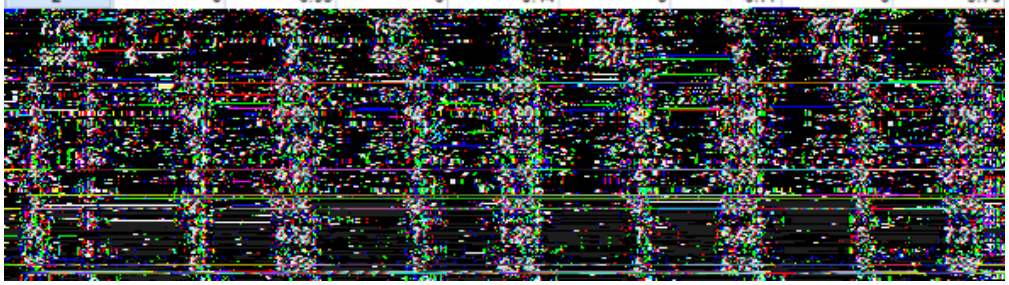
Legacy Boxplot window

`Panel by` - Separates into different boxes based on variables in this option

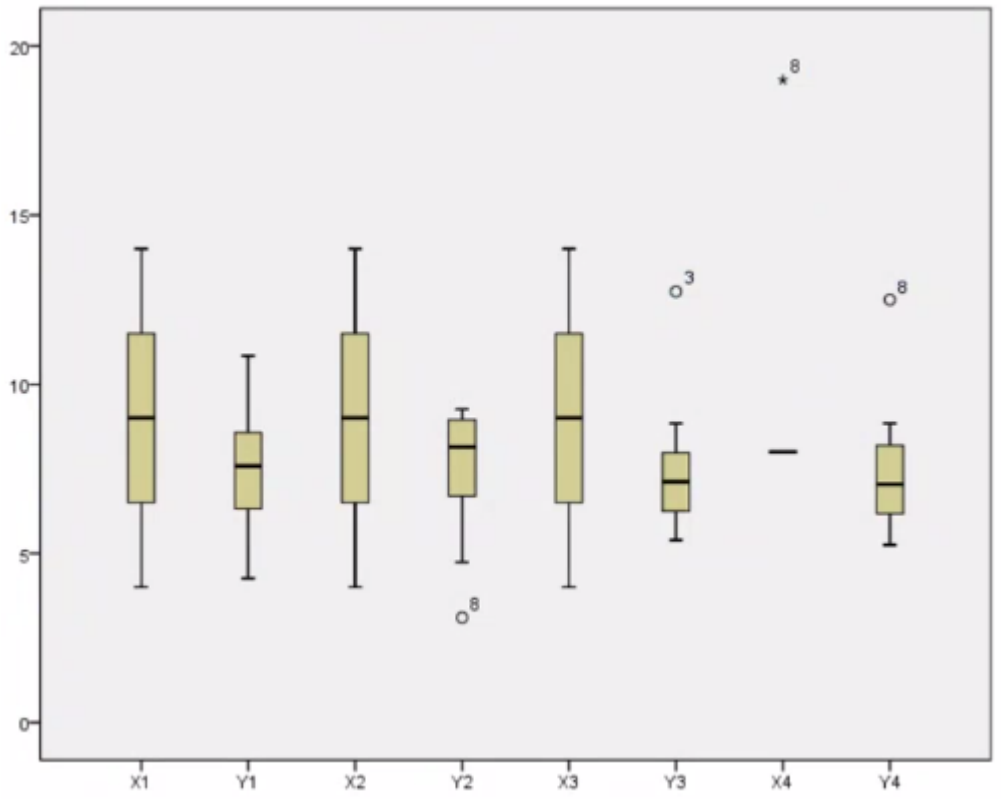
Classwork 1

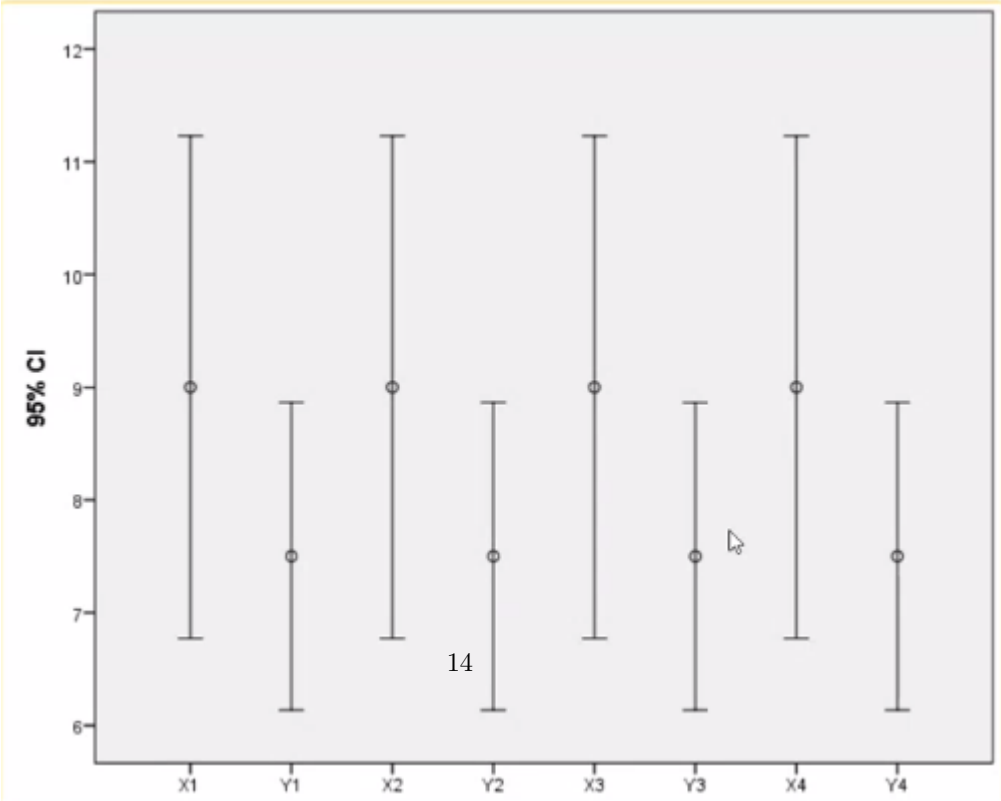
Data View

	x1	y1	x2	y2	x3	y3	x4	y4
1	10	8.04	10	9.14	10	7.46	8	6.58
2	8	6.95	8	8.14	8	6.77	8	5.76



Output View


20
15
10
5
0
X1
Y1
X2
Y2
X3
Y3
X4
Y4

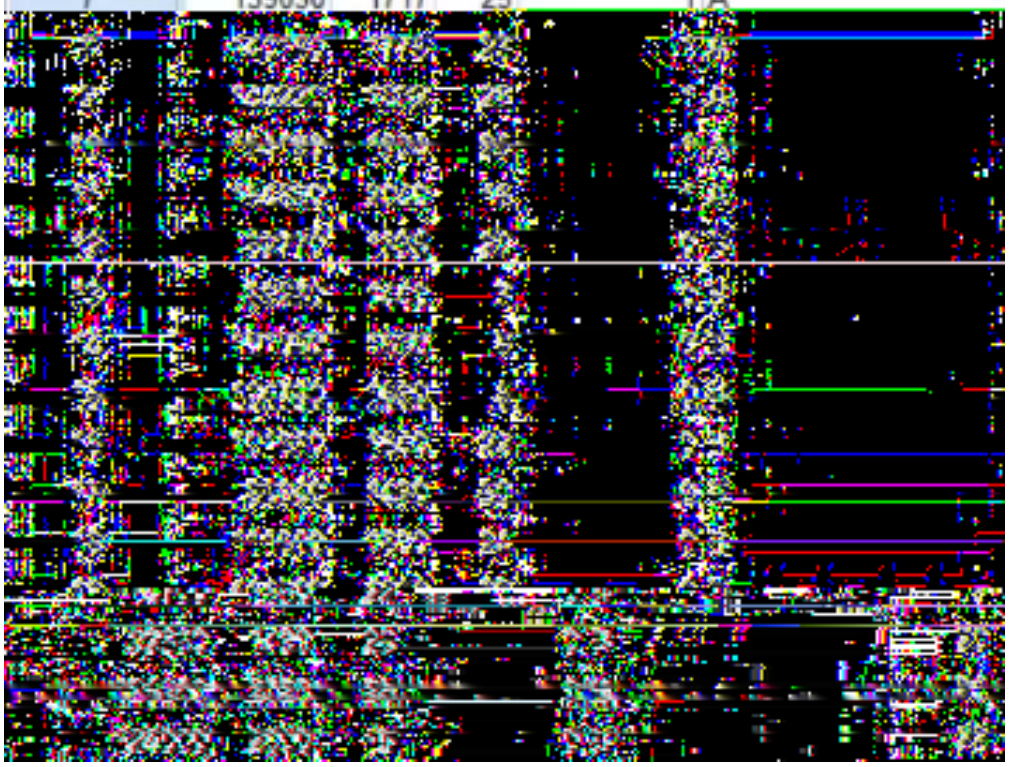

95% CI
12
11
10
9
8
7
6
X1
Y1
X2
Y2
X3
Y3
X4
Y4

95% Confidence interval plot

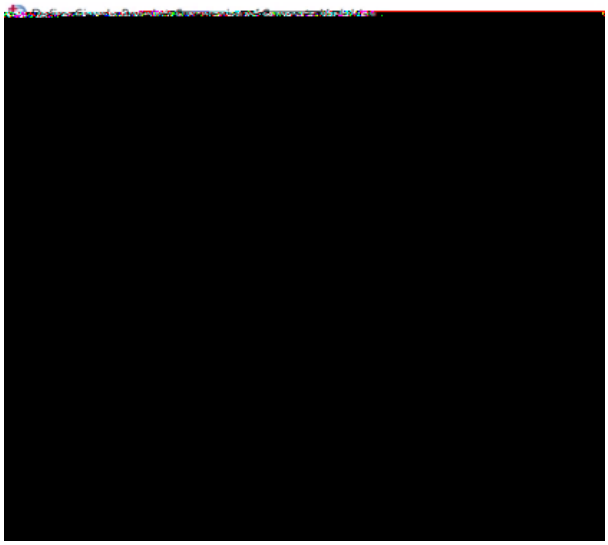
Classwork 2

Data View

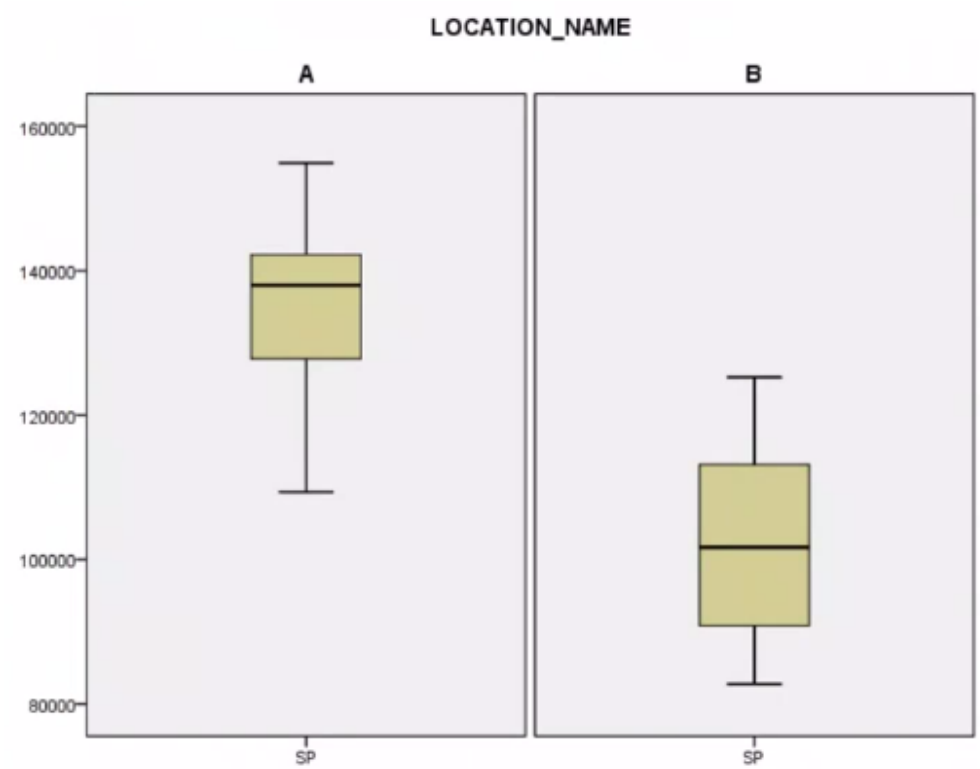
	SP	SIZE	AGE	LOCATION	LOCATION_NAME
1	109360	1404	20	1	A
2	137980	1477	2	1	A
3	131230	1503	5	1	A
4	130230	1552	4	1	A
5	125410	1608	23	1	A
6	124370	1633	34	1	A
7	139030	1717	25	1	A



Boxplot Window



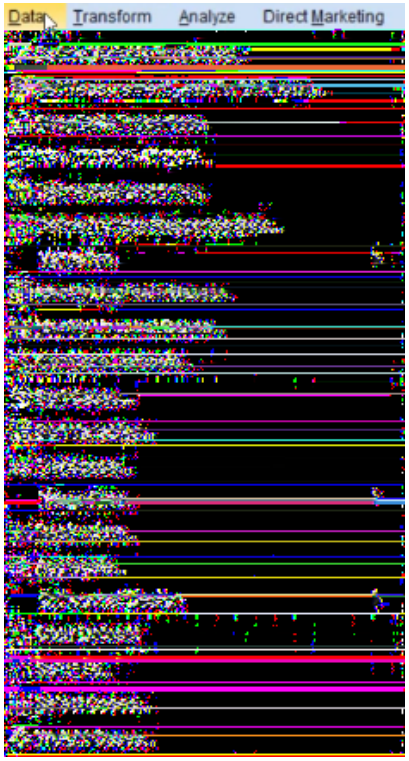
Output View



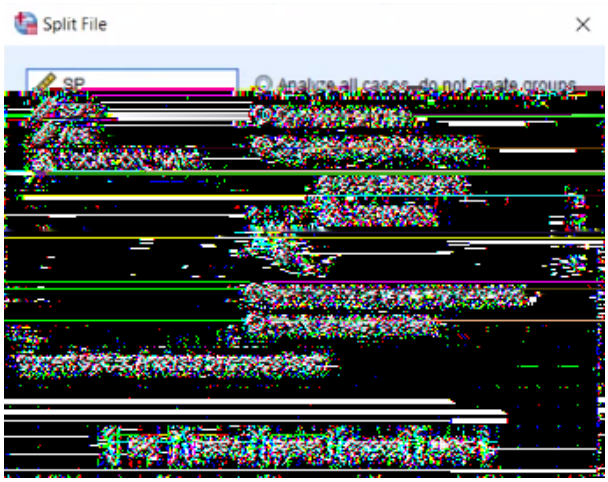
[8/9/2021]

Splitting Files into Groups

To split the data w.r.t some variable, we use `Split File` under `Data`⟶`Split File...`



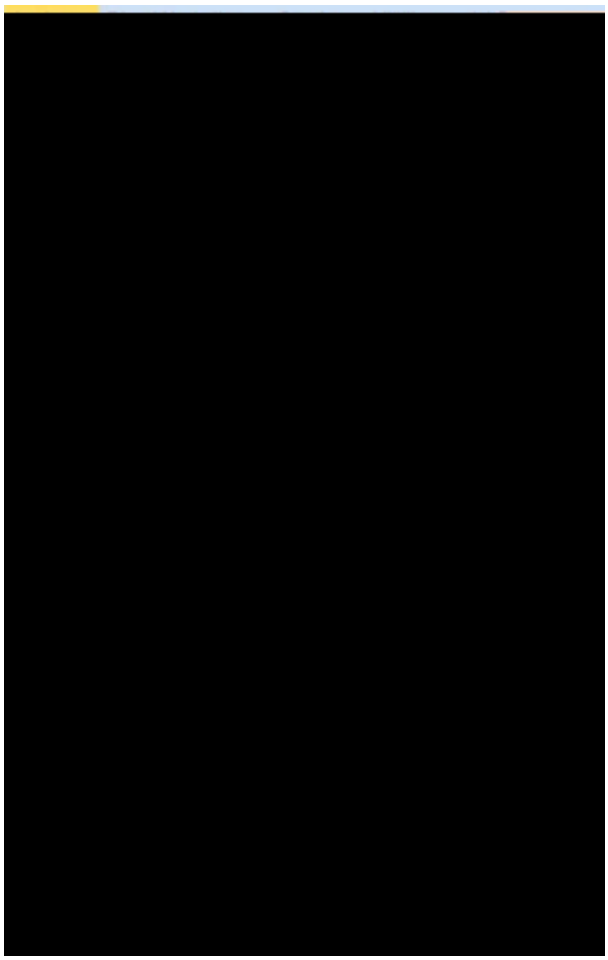
To split the file based on a variable, the variables must be in the `Group Based on:` dialogue.

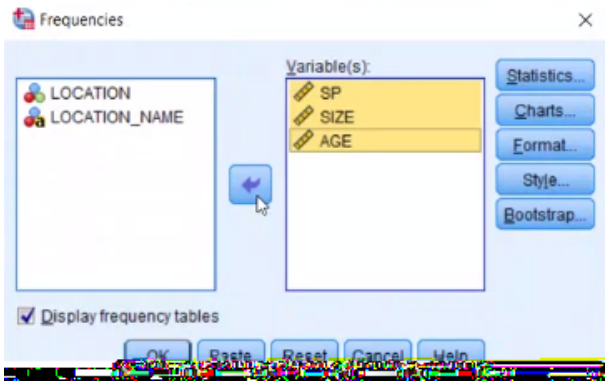


Frequencies for Descriptive Statistics

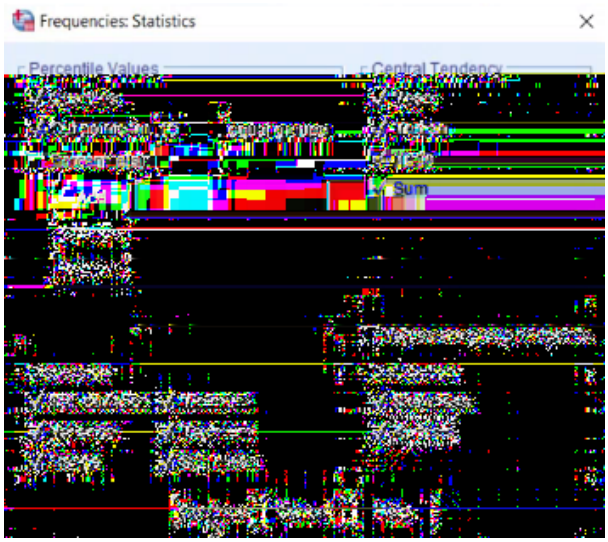
To display the descriptive statistics of a dataset in a vertical tabular form, an alternative method exists i.e. by using the `Frequencies...` dialogue.

The `Frequencies` window is under `Analyze`⟶`Descriptive Statistics`⟶`Frequencies...`





Variable selector window



Stats selector window