Split half reliability

A. Arranging your data

Click on the 'Variable View' window.

Give your variables names here. Maximum eight characters and no spaces.

Give your variables proper labels here.

	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure	Role
1	i1	Numeric	8	2		None	None	8	Right	Nominal	Input
2	i2	Numeric	8	2		None	None	8	Right	Nominal	Input
3	i3	Numeric	8	2		None	None	8	Right	Nominal	Input
4	i4	Numeric	8	2		None	None	8	Right	Nominal	Input
5	i5	Numeric	8	2		None	None	8	Right	Nominal	Input
6	i6	Numeric	8	2		None	None	8	Right	Nominal	Input
7	i7	Numeric	8	2		None	None	8	Right	Nominal	Input
8	i8	Numeric	8	2		None	None	8	Right	Nominal	Input
9	i9	Numeric	8	2		None	None	8	Right	Nominal	Input
10	i10	Numeric	8	2		None	None	8	Right	Nominal	Input
11	i11	Numeric	8	2		None	None	8	Right	Nominal	Input
12	i12	Numeric	8	2		None	None	8	Right	Nominal	Input

Click on the 'Data View' window.

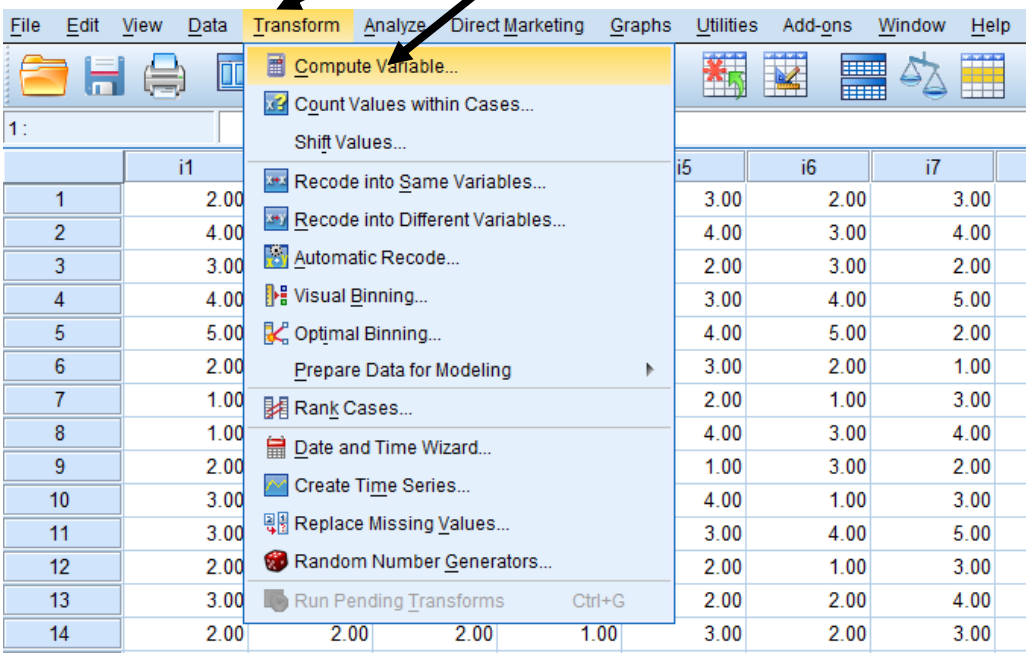
The diagram below shows dummy data for twenty participants who have completed a scale containing twelve items

	i1	i2	i3	i4	i5	i6	i7	i8	i9	i10	i11	i12
1	2.00	3.00	2.00	1.00	3.00	2.00	3.00	2.00	1.00	2.00	3.00	4.00
2	4.00	5.00	2.00	3.00	4.00	3.00	4.00	2.00	4.00	3.00	5.00	3.00
3	3.00	2.00	1.00	3.00	2.00	3.00	2.00	1.00	2.00	3.00	4.00	4.00
4	4.00	5.00	3.00	4.00	3.00	4.00	5.00	4.00	3.00	5.00	3.00	3.00
5	5.00	3.00	4.00	3.00	4.00	5.00	2.00	3.00	5.00	3.00	4.00	3.00
6	2.00	1.00	3.00	2.00	3.00	2.00	1.00	2.00	1.00	2.00	3.00	1.00
7	1.00	1.00	2.00	2.00	2.00	1.00	3.00	2.00	3.00	2.00	1.00	2.00
8	1.00	4.00	5.00	3.00	4.00	3.00	4.00	5.00	4.00	3.00	2.00	3.00
9	2.00	3.00	3.00	2.00	1.00	3.00	2.00	3.00	2.00	1.00	2.00	3.00
10	3.00	1.00	1.00	1.00	4.00	1.00	3.00	2.00	3.00	2.00	1.00	2.00
11	3.00	4.00	3.00	2.00	3.00	4.00	5.00	4.00	3.00	5.00	3.00	5.00
12	2.00	1.00	2.00	1.00	2.00	1.00	3.00	2.00	3.00	2.00	1.00	1.00
13	3.00	3.00	4.00	1.00	2.00	2.00	4.00	3.00	5.00	3.00	4.00	3.00
14	2.00	2.00	2.00	1.00	3.00	2.00	3.00	2.00	1.00	2.00	1.00	2.00
15	3.00	3.00	2.00	1.00	2.00	1.00	3.00	4.00	3.00	2.00	4.00	2.00
16	3.00	3.00	4.00	3.00	4.00	5.00	4.00	3.00	5.00	3.00	3.00	5.00
17	4.00	3.00	3.00	4.00	3.00	4.00	2.00	4.00	3.00	5.00	3.00	4.00
18	1.00	2.00	1.00	3.00	2.00	3.00	2.00	1.00	2.00	2.00	1.00	1.00
19	3.00	2.00	2.00	2.00	1.00	3.00	2.00	3.00	2.00	1.00	2.00	2.00
20	3.00	4.00	3.00	2.00	5.00	2.00	3.00	2.00	3.00	3.00	3.00	3.00

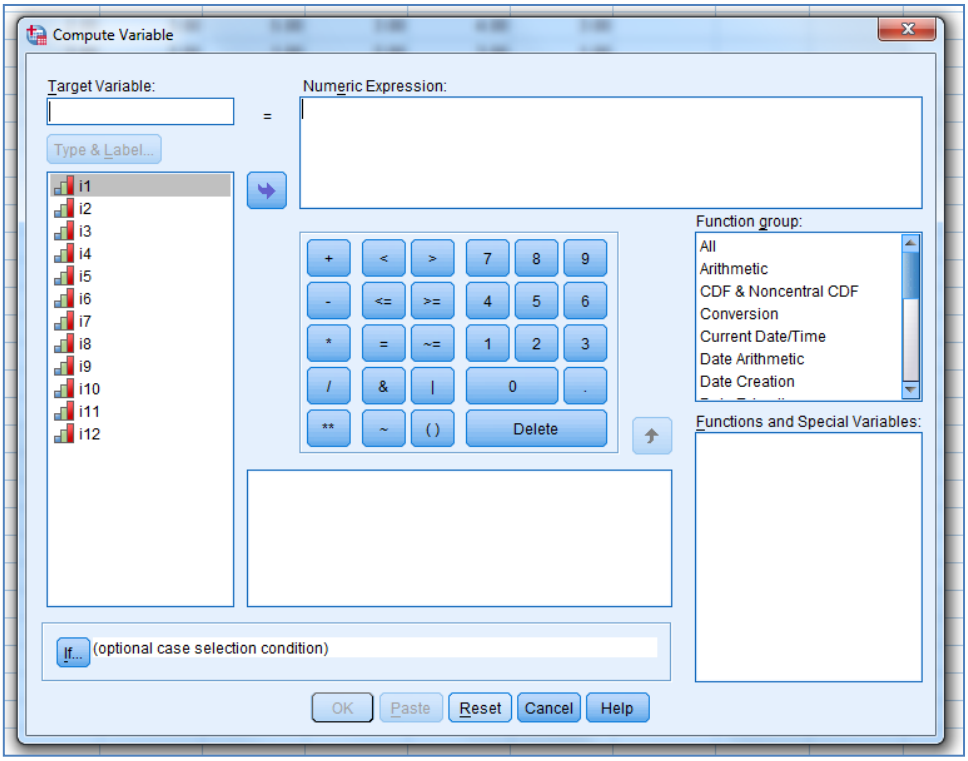
Dr Martin Graff

Next you need to get the total score for the odd numbered items, 1, 3, 5....etc and the total scores for the even numbered items 2, 4, 6.... etc

Go to 'Transform across the top, and then 'Compute Variable'



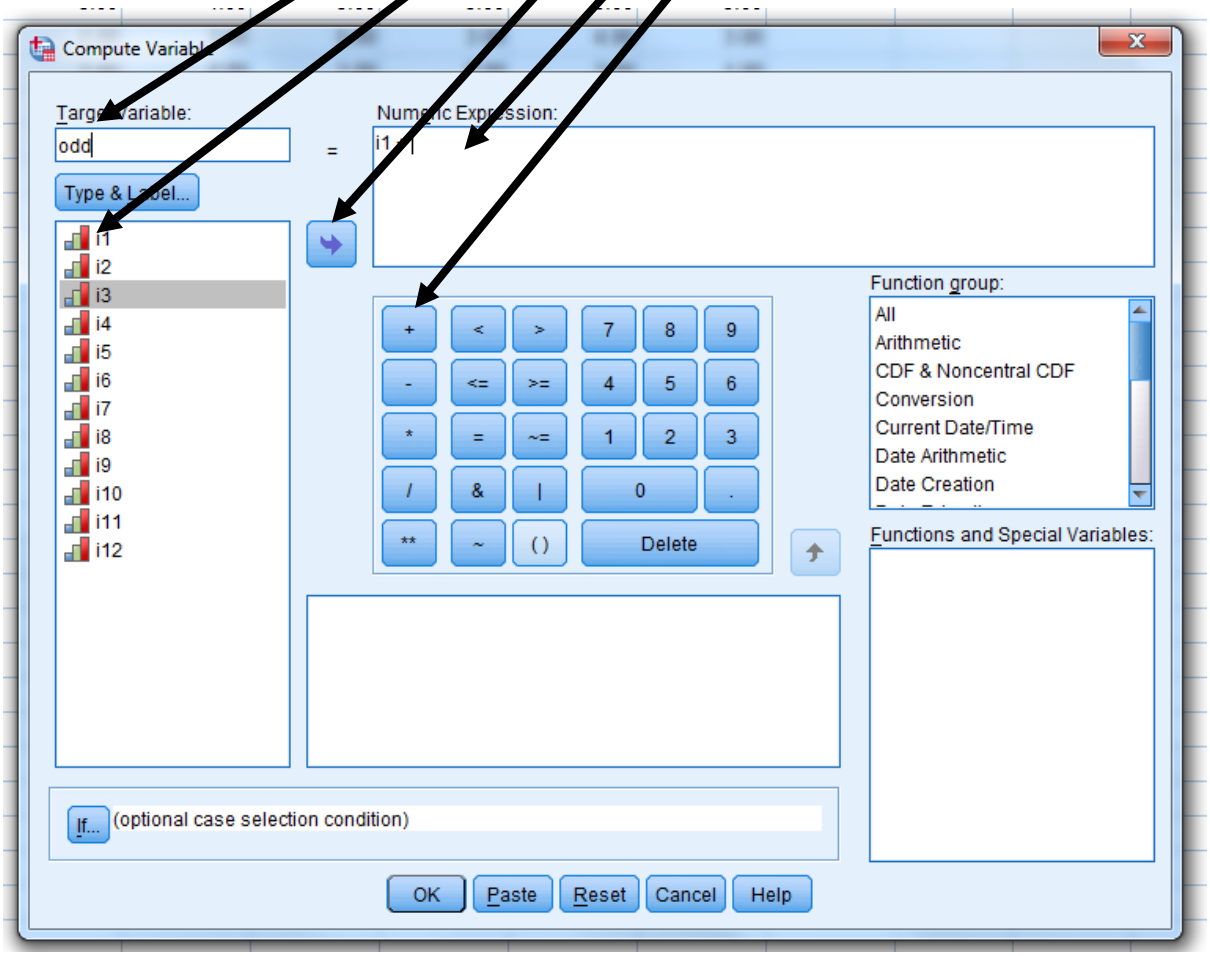
You will then see a box appear which looks like the one below



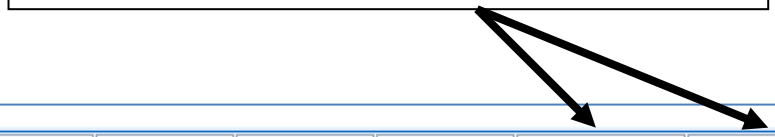
Dr Martin Graff

Label the 'Target Variable' odd. Click on i1 and use the arrow to move it over to the Numeric Expression box. Click on plus, and then click on i3 to move it over. Do the same for all odd items. Click OK.

Repeat the same process for the even items.



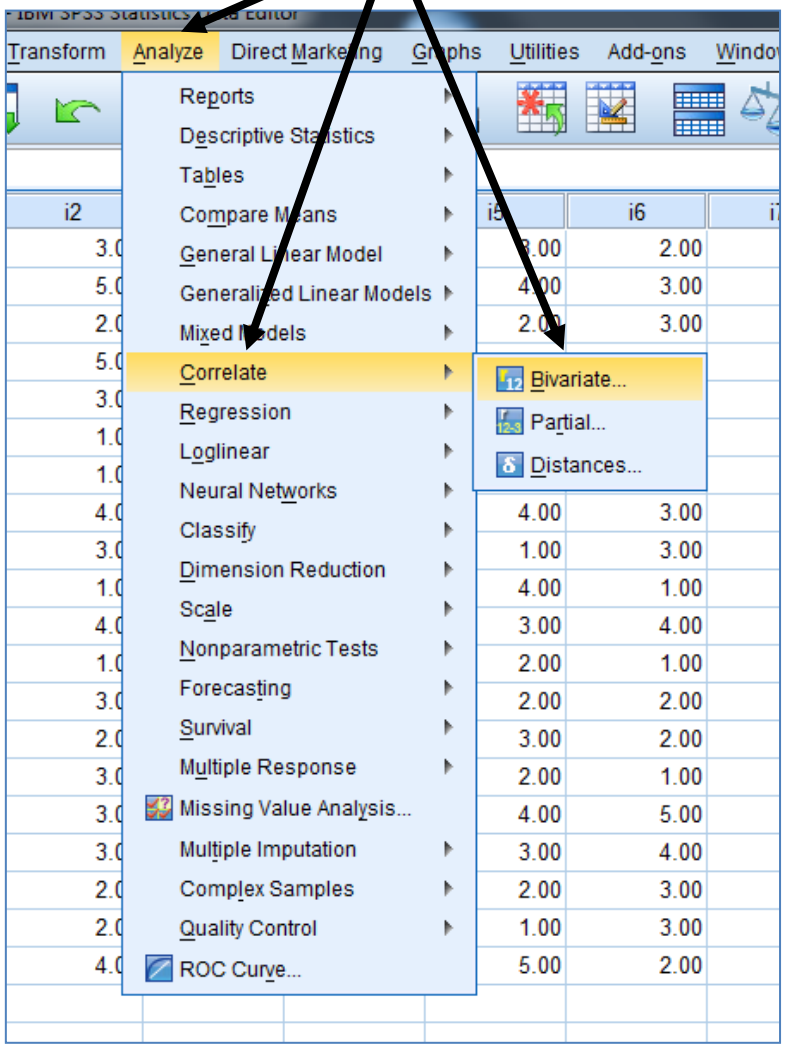
Your data view window should now have two new variables called 'odd' and 'even' as below.



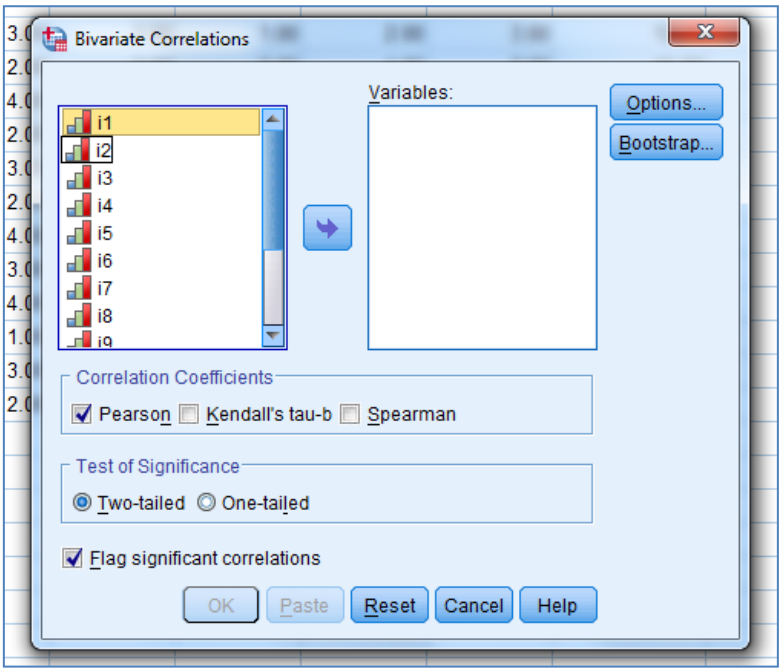
	i8	i9	i10	i11	i12	odd	even	var
0	2.00	1.00	2.00	3.00	4.00	14.00	14.00	
0	2.00	4.00	3.00	5.00	3.00	23.00	19.00	
0	1.00	2.00	3.00	4.00	4.00	14.00	16.00	
0	4.00	3.00	5.00	3.00	3.00	21.00	25.00	
0	3.00	5.00	3.00	4.00	3.00	24.00	20.00	
0	2.00	1.00	2.00	3.00	1.00	13.00	10.00	
0	2.00	3.00	2.00	1.00	2.00	12.00	10.00	
0	5.00	4.00	3.00	2.00	3.00	20.00	21.00	
0	3.00	2.00	1.00	2.00	3.00	12.00	15.00	
0	2.00	3.00	2.00	1.00	2.00	15.00	9.00	
0	4.00	3.00	5.00	3.00	5.00	20.00	24.00	
0	2.00	3.00	2.00	1.00	1.00	13.00	8.00	
0	3.00	5.00	3.00	4.00	3.00	22.00	15.00	
0	2.00	1.00	2.00	1.00	2.00	12.00	11.00	
0	4.00	3.00	2.00	4.00	2.00	17.00	13.00	
0	3.00	5.00	3.00	3.00	5.00	23.00	22.00	
0	4.00	3.00	5.00	3.00	4.00	18.00	24.00	
0	1.00	2.00	2.00	1.00	1.00	9.00	12.00	
0	3.00	2.00	1.00	2.00	2.00	12.00	13.00	
0	2.00	3.00	3.00	3.00	3.00	20.00	16.00	

Running the correlation

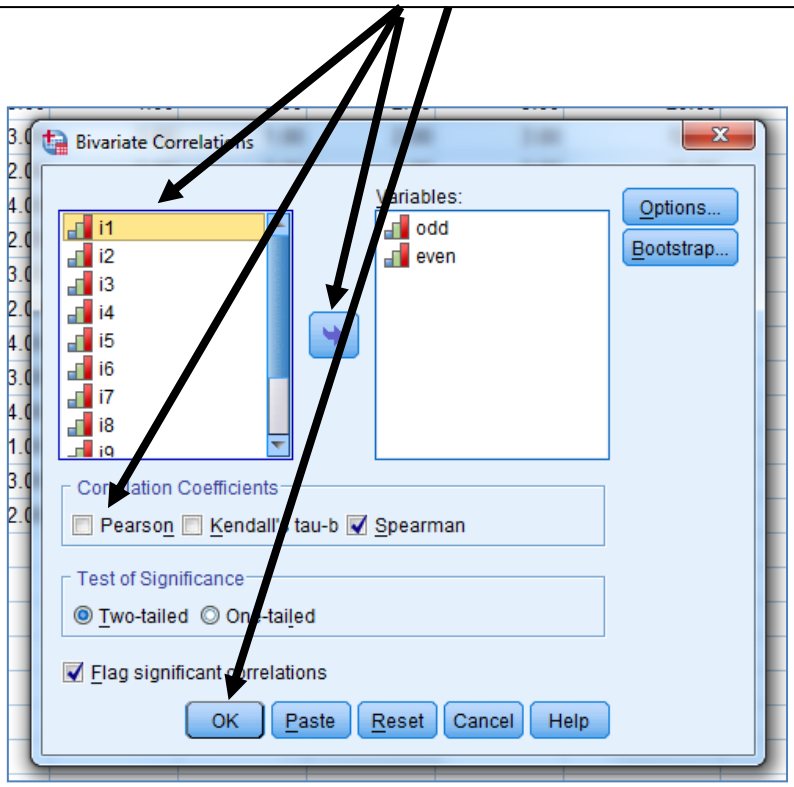
Click on 'Analyse', 'Correlate' and 'Bivariate'



You will then see this window

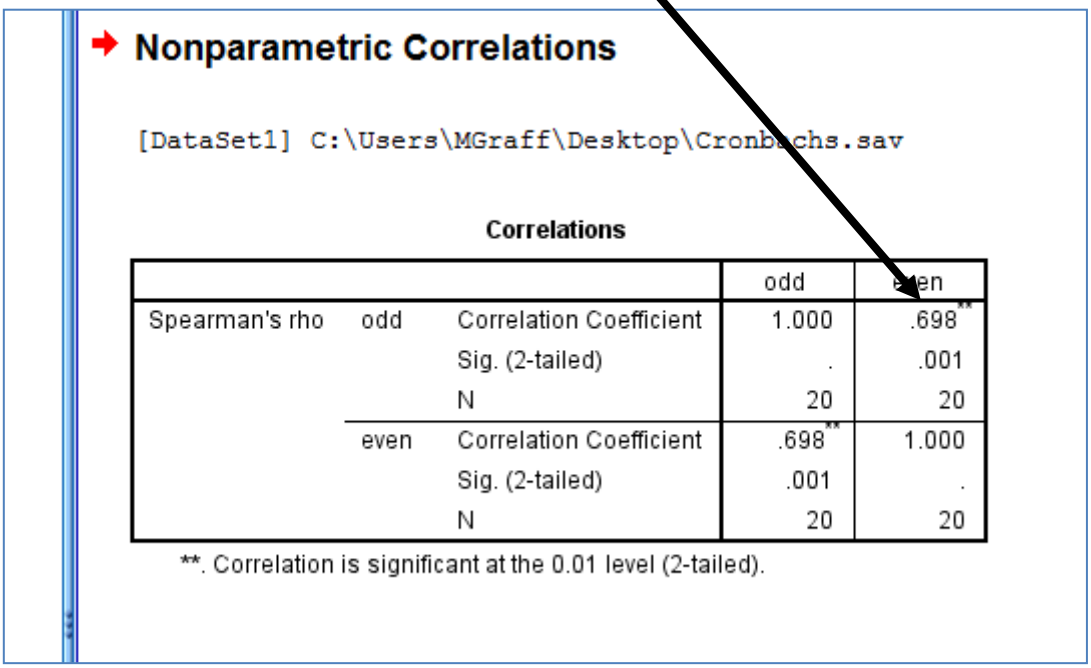


Find 'odd' and 'even' here and move them across with the arrow. Uncheck 'Pearson' and choose 'Spearman'. Click on 'OK'



The Output

The output will look like in the diagram below. It shows us we have a correlation between odd and even items of 069.



Nonparametric Correlations

[DataSet1] C:\Users\MGraff\Desktop\Cronbachs.sav

Correlations

			odd	even
Spearman's rho	odd	Correlation Coefficient	1.000	.698**
		Sig. (2-tailed)	.	.001
		N	20	20
	even	Correlation Coefficient	.698**	1.000
		Sig. (2-tailed)	.001	.
		N	20	20

**. Correlation is significant at the 0.01 level (2-tailed).