

حساب معاملات الارتباط باستخدام نظام spss

يمثل الجدول التالي علامات 15 طالبا في مادتي الكيمياء والأحياء، استخدم نظام spss لإيجاد كل من:

- معامل بيرسون بين علامات الكيمياء والأحياء.

- معامل سبيرمان للرتب بين علامات الكيمياء والأحياء.

الرقم	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
ع.ك	80	70	60	45	50	75	80	81	71	64	58	73	68	71	64
ع.أ	70	50	80	40	60	78	89	77	67	58	68	84	71	77	68

3- نستخدم الفأرة للضغط على analyze، ثم نضغط على correlate، فيظهر الخيار Bivariate كما في الشكل التالي:

The screenshot shows the IBM SPSS Statistics Data Editor interface. The 'Analyze' menu is open, and the 'Correlate' option is selected, which has opened a sub-menu with 'Bivariate...' highlighted. The data editor shows two variables: 'chimestryg' and 'biologyg'. The data is as follows:

	chimestryg	biologyg
1	80,00	70,00
2	70,00	50,00
3	60,00	80,00
4	45,00	40,00
5	50,00	60,00
6	75,00	78,00
7	80,00	89,00
8	81,00	77,00
9	71,00	67,00
10	64,00	58,00
11	58,00	68,00
12	73,00	84,00
13	68,00	71,00
14	71,00	77,00
15	64,00	68,00
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4- نضغط على الخيار Bivaraitة لتظهر شاشة Bivaraitة Correlations كما في الشكل:

The screenshot displays the IBM SPSS Statistics Data Editor interface. The main window shows a data table with two columns: 'chimestryg' and 'biologyg'. The data points are as follows:

	chimestryg	biologyg
1	80,00	70,00
2	70,00	50,00
3	60,00	80,00
4	45,00	40,00
5	50,00	60,00
6	75,00	78,00
7	80,00	89,00
8	81,00	77,00
9	71,00	67,00
10	64,00	58,00
11	58,00	68,00
12	73,00	84,00
13	68,00	71,00
14	71,00	77,00
15	64,00	68,00
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The 'Bivariate Correlations' dialog box is open, showing the following settings:

- Variables:** chimestryg, biologyg
- Correlation Coefficients:** Pearson, Kendall's tau-b, Spearman
- Test of Significance:** Two-tailed, One-tailed
- Flag significant correlations

The dialog box also includes buttons for 'Options...', 'Bootstrap...', 'OK', 'Paste', 'Reset', 'Cancel', and 'Help'.

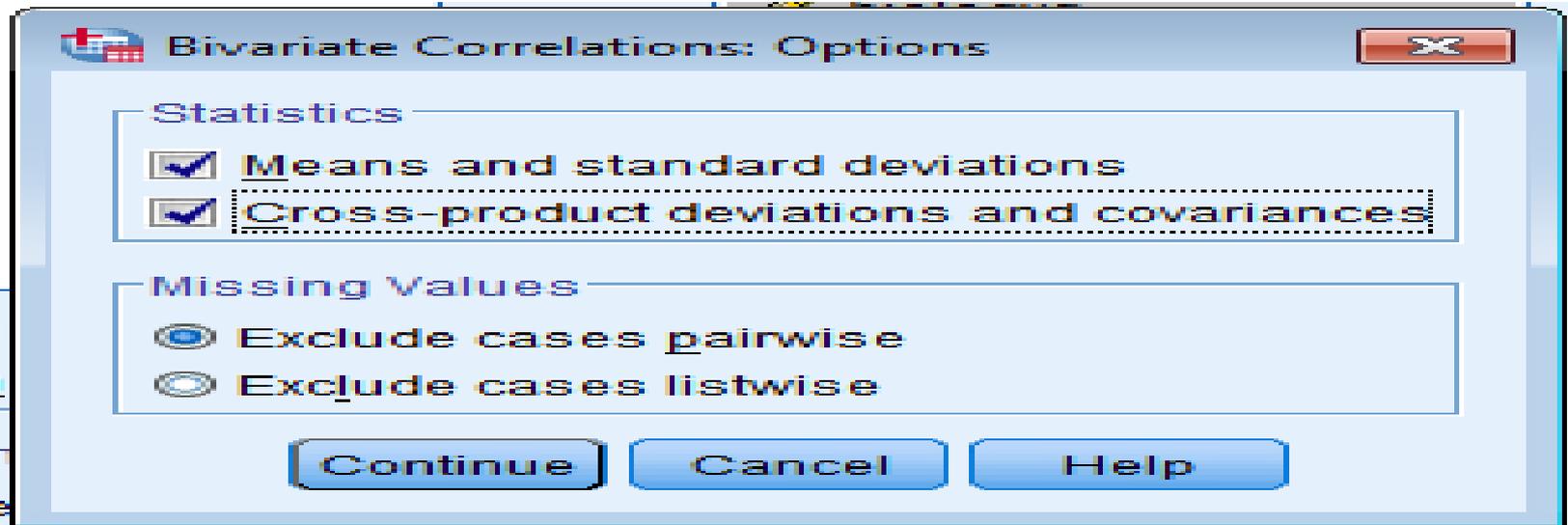
5-نضغط على السهم الموجود قبل مربع الحوار لنقل المتغيرين Chimestry وBiology إلى داخل مربع الحوار Variables، ثم نؤشر على المربع الصغير المجاور للإحصائيين Pearson و Spearman، فتظهر لنا الشاشة كما في الشكل التالي:

The screenshot shows the IBM SPSS Statistics Data Editor interface. The main window displays a data table with two columns: 'chimestryg' and 'biologyg'. The data points are as follows:

	chimestryg	biologyg
1	80,00	70,00
2	70,00	50,00
3	60,00	80,00
4	45,00	40,00
5	50,00	60,00
6	75,00	78,00
7	80,00	89,00
8	81,00	77,00
9	71,00	67,00
10	64,00	58,00
11	58,00	68,00
12	73,00	84,00
13	68,00	71,00
14	71,00	77,00
15	64,00	68,00
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Overlaid on the data table is the 'Bivariate Correlations' dialog box. The 'Variables:' list contains 'chimestryg' and 'biologyg'. Under 'Correlation Coefficients', the 'Pearson' checkbox is checked, while 'Kendall's tau-b' and 'Spearman' are unchecked. Under 'Test of Significance', the 'Two-tailed' radio button is selected. The 'Flag significant correlations' checkbox is also checked. The dialog box includes buttons for 'Options...', 'Bootstrap...', 'OK', 'Paste', 'Reset', 'Cancel', and 'Help'.

نضغط على الخيار options، فتظهر الشاشة كما يلي:



significant correlations



نضغط على continue، ثم ok

The screenshot shows the IBM SPSS Statistics Viewer interface. The menu bar includes File, Edit, View, Data, Transform, Insert, Format, Analyze, Direct Marketing, Graphs, Utilities, Add-ons, Window, and Help. The toolbar contains various icons for file operations and analysis. The left sidebar shows a tree view of the output, with 'Statistiques descriptives' selected. The main window displays the following content:

```

/STATISTICS DESCRIPTIVES XPROD
/MISSING=PAIRWISE.

```

Corrélations

[DataSet0]

	Moyenne	Ecart-type	N
chimestryg	67,3333	10,67485	15
biologyg	69,1333	13,01025	15

Corrélations

	chimestryg	biologyg
chimestryg	1	,655**
Corrélation de Pearson		
Sig. (bilatérale)		,008
Somme des carrés et produits croisés	1595,333	1274,333
Covariance	113,952	91,024
N	15	15
biologyg	,655**	1
Corrélation de Pearson		
Sig. (bilatérale)		,008
Somme des carrés et produits croisés	1274,333	2369,733
Covariance	91,024	169,267
N	15	15

** . La corrélation est significative au niveau 0.01 (bilatéral).

Corrélations non paramétriques

[DataSet0]

Corrélations				
			chimestryg	biologyg
Rho de Spearman	chimestryg	Coefficient de corrélation	1,000	,592*
		Sig. (bilatérale)	.	,020
		N	15	15
	biologyg	Coefficient de corrélation	,592*	1,000
		Sig. (bilatérale)	,020	
		N	15	

*. La corrélation est significative au niveau 0,05 (bilatéral).

Double-click to activate