

الباب الخامس

البرنامج الإحصائي SPSS



SPSS 10.0 for Windows/Jak

File Edit View Data Transform Analyze Graphs Utilities Window Help

1:

	var	var	var	var	var	var
1						
2					:	
3						
4			SPSS		.1	
5						
6						
7					.2	
8						
9						
10					.3	
11						
12					.4	
13						
14						
15					.5	
16						

Data View Variable View

SPSS Processor is ready

الباب الخامس

البرنامج الإحصائي SPSS

Introduction مقدمة ❖

SPSS
SPSS
1992 (Main Frame)
Microsoft Windows

SPSS



SPSS

SPSS

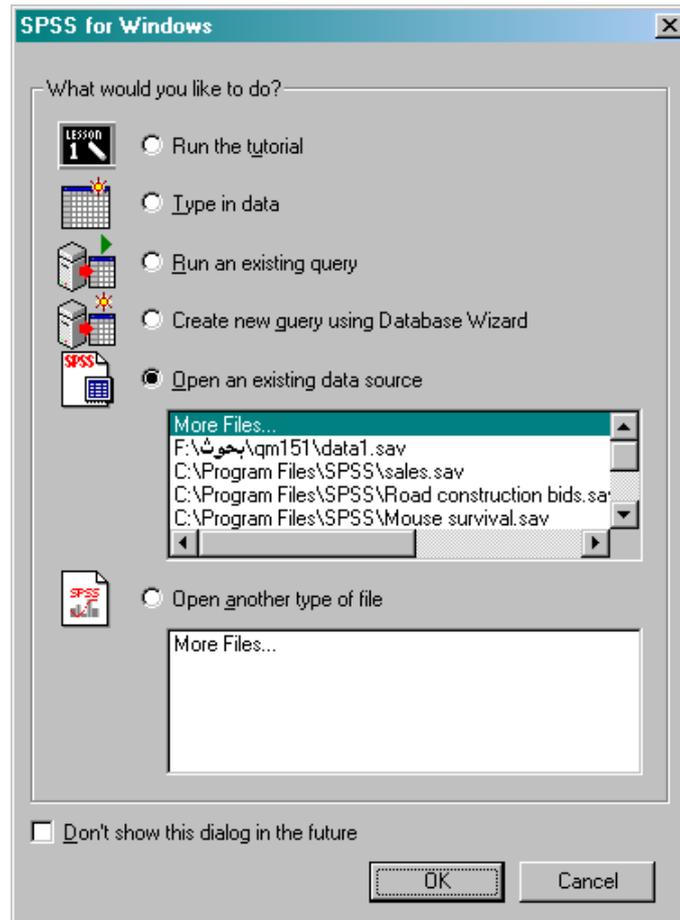
Data **البيانات** ❖

SPSS

SPSS for Windows

SPSS

:



(tutorial)

SPSS

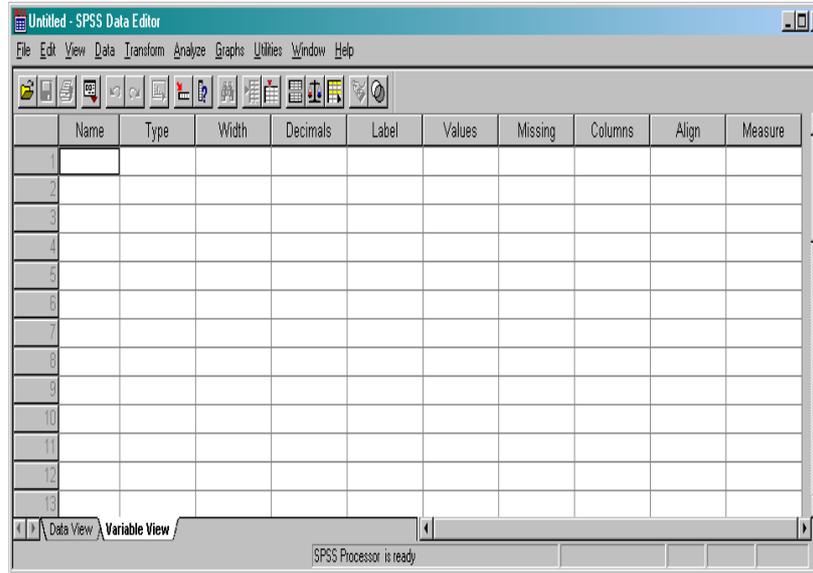


SPSS

SPSS
(Data View)

:

(Variable View)



اسم المتغير Name:

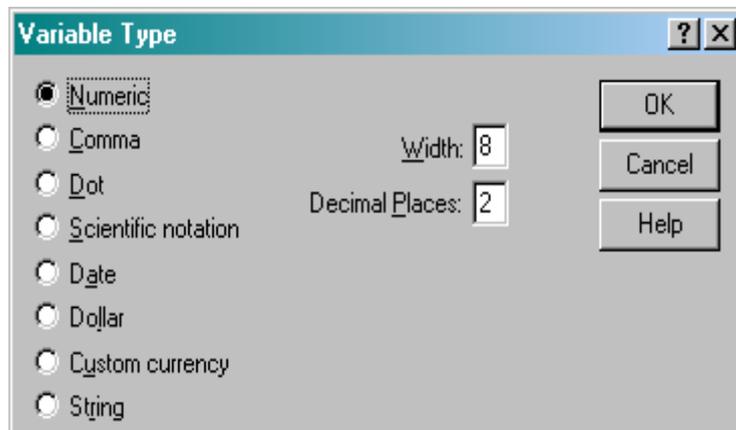
(\$ # @ . _ :)

▪ نوع المتغير Type:

SPSS

(Numeric)

:



(Comma)

(Dot)

(Scientific Notation)

(E)

E

$$236.563E05 = 236.563 \times 10^5 = 23656300$$

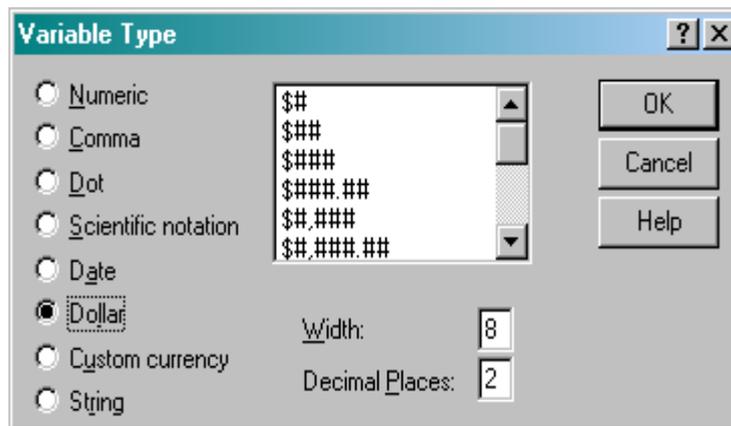
$$200.03E-05 = 200.03 \times 10^{-5} = 0.0020003$$

.SPSS

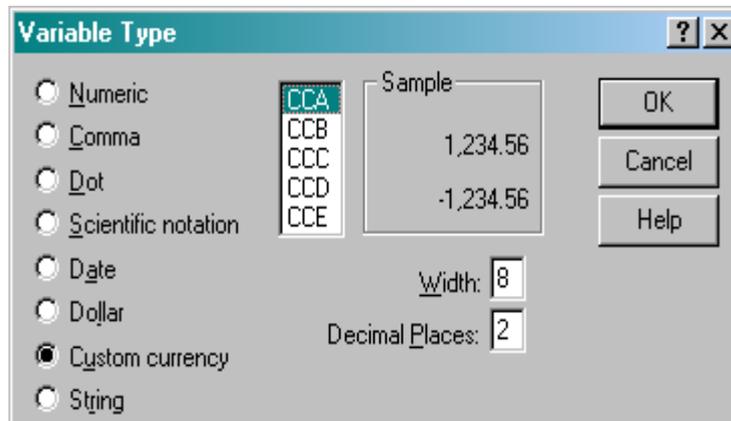
8 (Width)

(Decimal places)

SPSS



:



CCE CCD CCC CCB CCA

currency

Options

Edit

:

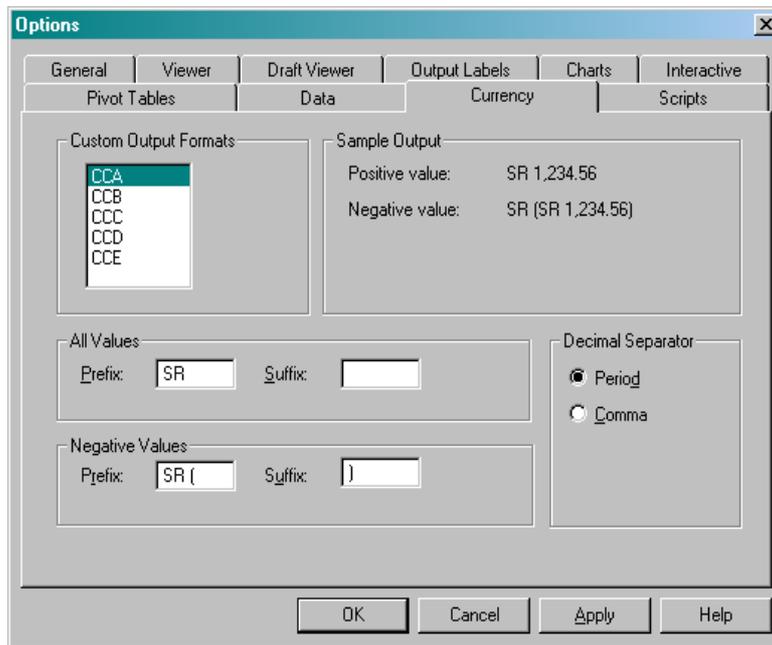


(Prefix)

(Suffix)

CCA

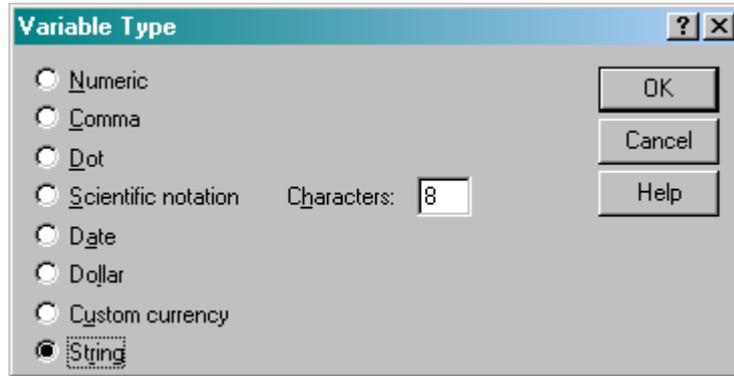
SR



String

.(Variable Type)

:



▪ العرض Width:

▪ عدد الأرقام العشرية Decimals:

▪ العنوان Label:

▪ القيم :Values

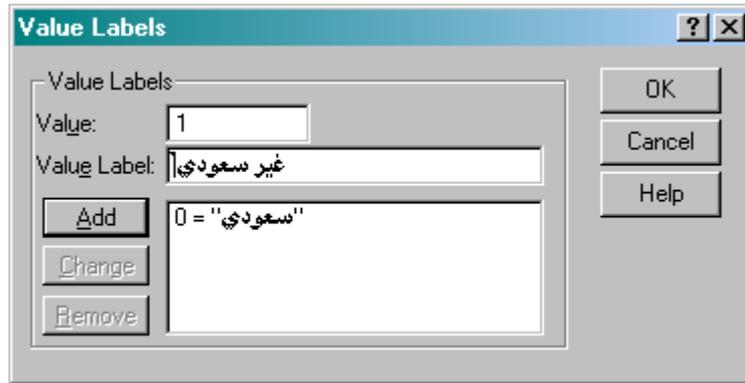
1 " " 0
f m " "
" " " "
:

The screenshot shows the SPSS Data Editor window for a file named 'data0'. The window title is 'data0 - SPSS Data Editor'. The menu bar includes File, Edit, View, Data, Transform, Analyze, Graphs, Utilities, Window, and Help. The toolbar contains various icons for file operations and data manipulation. The main area displays a data table with the following columns: 'الجنسية' (Nationality), 'الجنس' (Gender), 'var', and 'var'. The data is organized into rows numbered 1 to 20. The 'الجنسية' column contains values 1 and 0, and the 'الجنس' column contains values 'm' and 'f'. The two 'var' columns are empty. The status bar at the bottom indicates 'SPSS Processor is ready'.

	الجنسية	الجنس	var	var
1	1	m		
2	0	f		
3	0	f		
4	0	m		
5	1	m		
6	1	f		
7	0	m		
8	1	f		
9	1	m		
10	1	m		
11	0	f		
12	1	f		
13	0	f		
14	0	m		
15	1	f		
16	1	m		
17	1	m		
18	0	f		
19	1	m		
20	0	m		

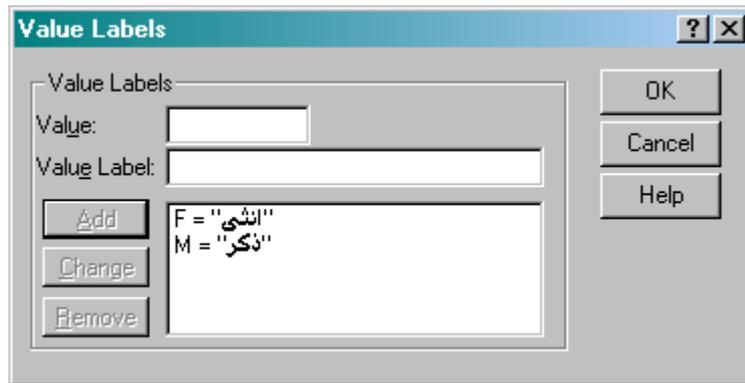
values

.variable view



Add

:



labels value

.view

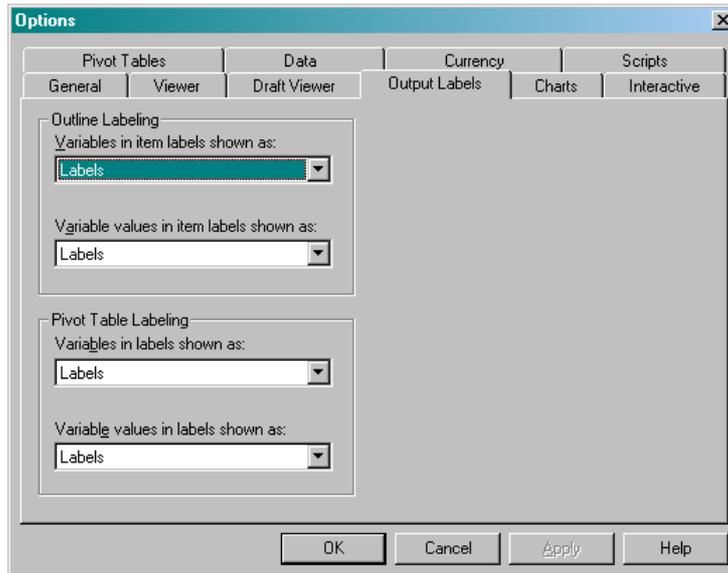
The screenshot shows the SPSS Data Editor window titled 'data0 - SPSS Data Editor'. The menu bar includes File, Edit, View, Data, Transform, Analyze, Graphs, Utilities, Window, and Help. The toolbar contains various icons for file operations and data manipulation. The main window displays a data table with the following columns: 'الجنسية' (Nationality), 'الجنس' (Gender), and three columns labeled 'var'. The data rows are numbered 1 to 20. The 'الجنسية' column contains values like 'غير سعودي' (Non-Saudi) and 'سعودي' (Saudi). The 'الجنس' column contains 'm' for male and 'f' for female. The status bar at the bottom indicates 'SPSS Processor is ready'.

	الجنسية	الجنس	var	var	var
1	غير سعودي	m			
2	سعودي	f			
3	سعودي	f			
4	سعودي	m			
5	غير سعودي	m			
6	غير سعودي	f			
7	سعودي	m			
8	غير سعودي	f			
9	غير سعودي	m			
10	غير سعودي	m			
11	سعودي	f			
12	غير سعودي	f			
13	سعودي	f			
14	سعودي	m			
15	غير سعودي	f			
16	غير سعودي	m			
17	غير سعودي	m			
18	سعودي	f			
19	غير سعودي	m			
20	سعودي	m			

SPSS

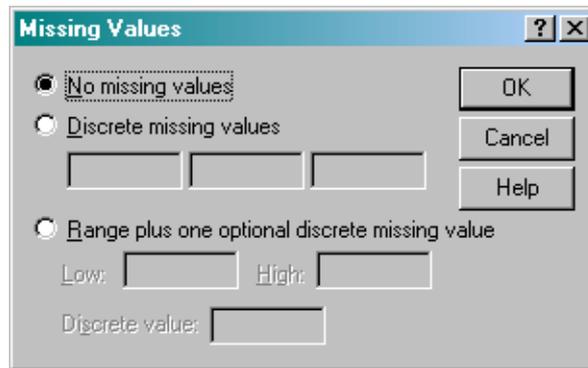
Edit options

:



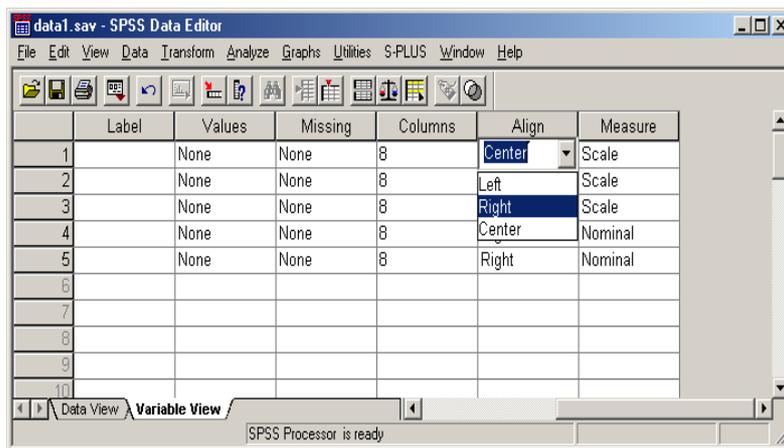
▪ القيم المفقودة :Missing

()



▪ الأعمدة Columns:

▪ المحاذاة Align:



المقياس Measure:

Scale

Nominal () Ordinal

استيراد وتصدير البيانات Import and Export Data ❖

Microsoft

Windows

(Text Files)

SPSS

SPSS

() Open File SPSS

dBase SYLK SYSTAT LOTUS EXCEL

Data Text

SPSS

.EXCEL (Text)

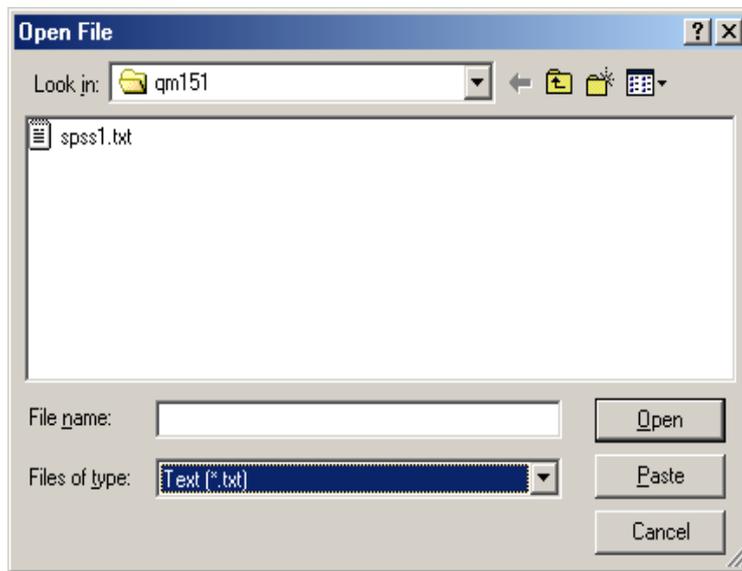
Files

Text

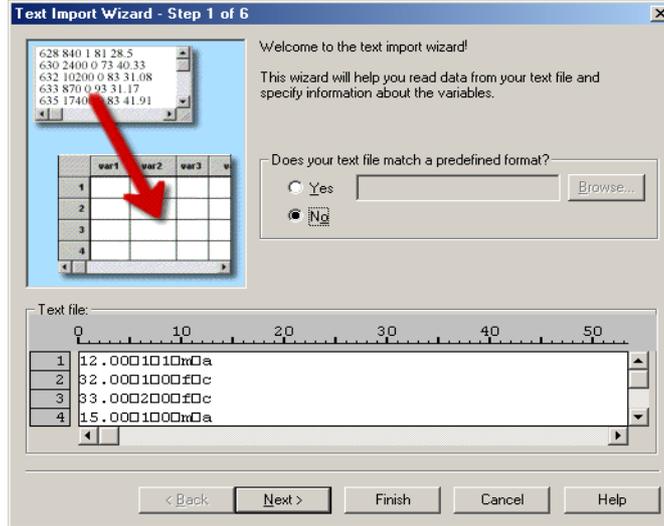
Open File

.() of Type

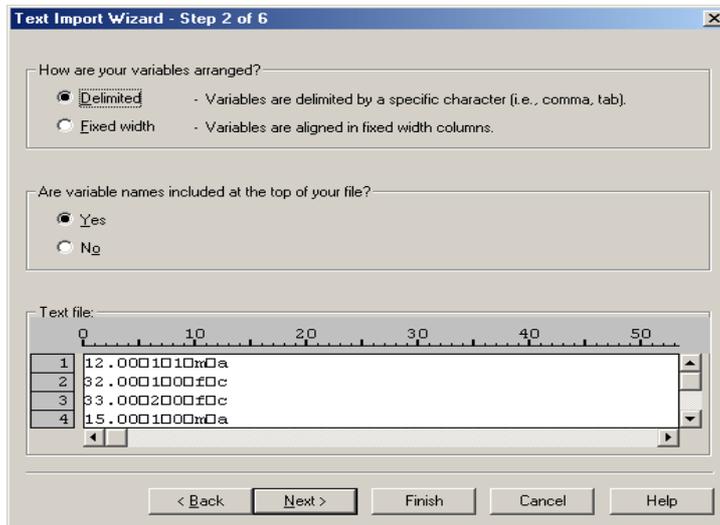
.() Open



SPSS



Next



Text Import Wizard - Delimited Step 3 of 6

The first case of data begins on which line number?

How are your cases represented?

Each line represents a case

A specific number of variables represents a case:

How many cases do you want to import?

All of the cases

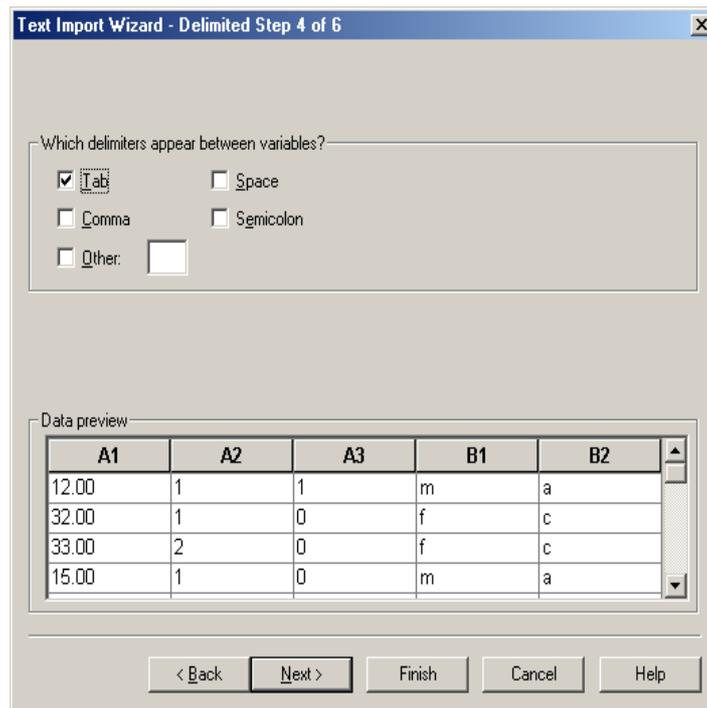
The first cases.

A random percentage of the cases (approximate): %

Data preview

	0	10	20	30	40	50
1	12.000101000a					
2	32.0001000f0c					
3	33.0002000f0c					

< Back Next > Finish Cancel Help



Save Data

SPSS () As

Text Import Wizard - Step 5 of 6

Specifications for variable(s) selected in the data preview

Variable name:

Data format:

Data preview

A1	A2	A3	B1	B2
12.00	1	1	m	a
32.00	1	0	f	c
33.00	2	0	f	c

< Back Next > Finish Cancel Help

Text Import Wizard - Step 6 of 6

You have successfully defined the format of your text file.

Would you like to save this file format for future use?

Yes No Save As...

Would you like to paste the syntax?

Yes No

Press the Finish button to complete the text import wizard.

Data preview

A1	A2	A3	B1	B2
12.00	1	1	m	a
32.00	1	0	f	c
33.00	2	0	f	c

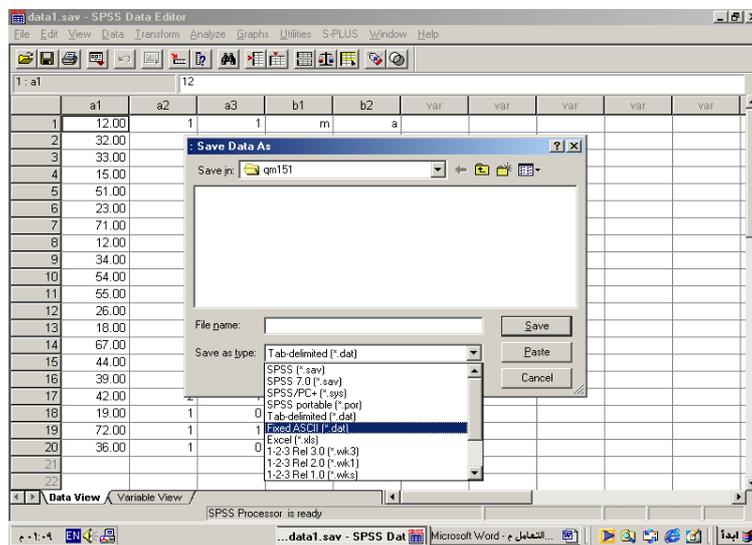
< Back Next > Finish Cancel Help

SPSS

Tab-delimited

Save As Type

Fixed ASCII



.SPSS

SPSS

EXCEL

(Functions)

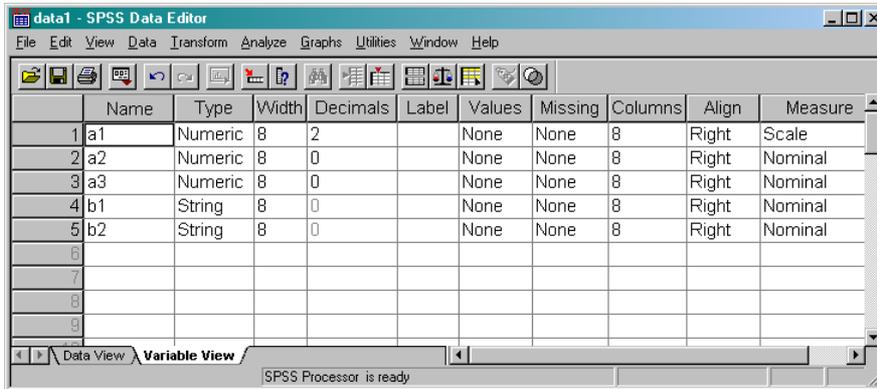
.

:

				a1	•	
			1,2,3	a2	•	
			1,0	a3	•	
				(m,f)	b1	•
				(a,b,c)	b2	•
0	a3	a2				

.

.

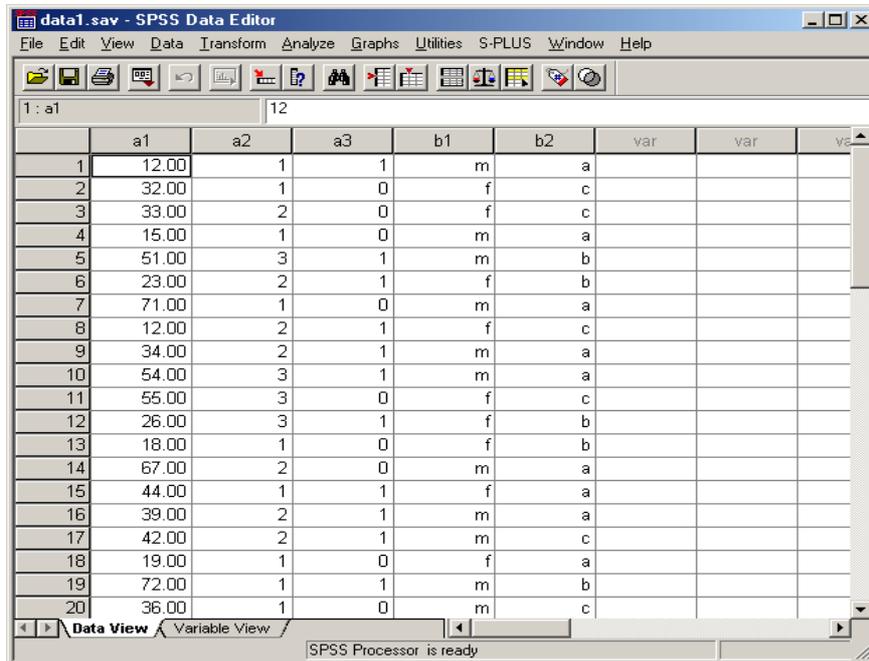


The screenshot shows the 'Variable View' of an SPSS Data Editor window. The table below represents the variable definitions shown in the interface.

	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure
1	a1	Numeric	8	2		None	None	8	Right	Scale
2	a2	Numeric	8	0		None	None	8	Right	Nominal
3	a3	Numeric	8	0		None	None	8	Right	Nominal
4	b1	String	8	0		None	None	8	Right	Nominal
5	b2	String	8	0		None	None	8	Right	Nominal
6										
7										
8										
9										

(variable view)

:



The screenshot shows the 'Data View' of an SPSS Data Editor window. The table below represents the data entered for the first 20 rows.

	a1	a2	a3	b1	b2	var	var	var
1	12.00	1	1	m	a			
2	32.00	1	0	f	c			
3	33.00	2	0	f	c			
4	15.00	1	0	m	a			
5	51.00	3	1	m	b			
6	23.00	2	1	f	b			
7	71.00	1	0	m	a			
8	12.00	2	1	f	c			
9	34.00	2	1	m	a			
10	54.00	3	1	m	a			
11	55.00	3	0	f	c			
12	26.00	3	1	f	b			
13	18.00	1	0	f	b			
14	67.00	2	0	m	a			
15	44.00	1	1	f	a			
16	39.00	2	1	m	a			
17	42.00	2	1	m	c			
18	19.00	1	0	f	a			
19	72.00	1	1	m	b			
20	36.00	1	0	m	c			

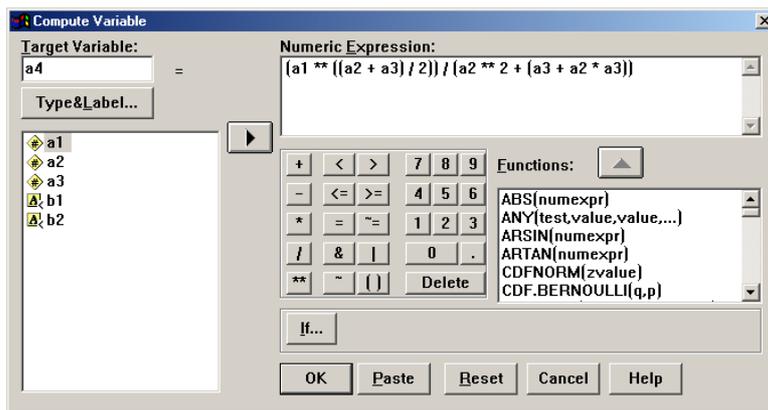
a4

:

$$a4 = \frac{a1 \left(\frac{a2+a3}{2} \right)}{a2^2 + (a3 + a2 * a3)}$$

SPSS (Compute)

:



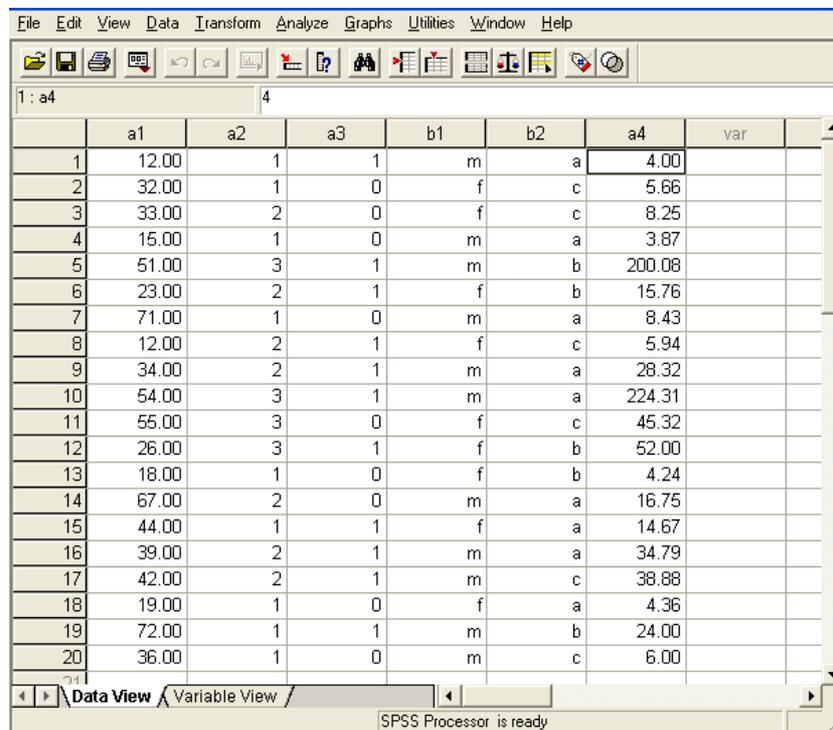
Target Variable

.

.

(OK)

a4

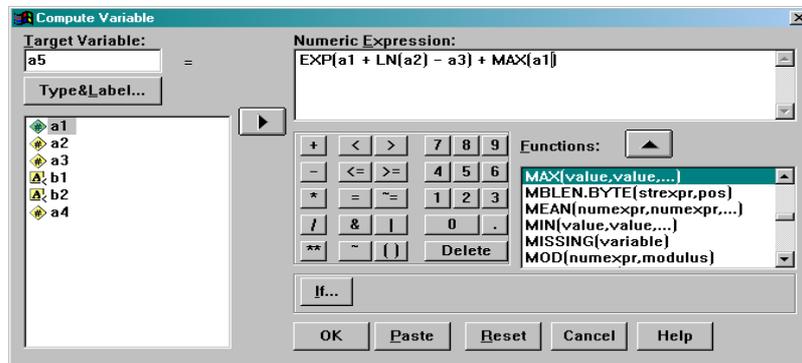


	a1	a2	a3	b1	b2	a4	var
1	12.00	1	1	m	a	4.00	
2	32.00	1	0	f	c	5.66	
3	33.00	2	0	f	c	8.25	
4	15.00	1	0	m	a	3.87	
5	51.00	3	1	m	b	200.08	
6	23.00	2	1	f	b	15.76	
7	71.00	1	0	m	a	8.43	
8	12.00	2	1	f	c	5.94	
9	34.00	2	1	m	a	28.32	
10	54.00	3	1	m	a	224.31	
11	55.00	3	0	f	c	45.32	
12	26.00	3	1	f	b	52.00	
13	18.00	1	0	f	b	4.24	
14	67.00	2	0	m	a	16.75	
15	44.00	1	1	f	a	14.67	
16	39.00	2	1	m	a	34.79	
17	42.00	2	1	m	c	38.88	
18	19.00	1	0	f	a	4.36	
19	72.00	1	1	m	b	24.00	
20	36.00	1	0	m	c	6.00	

a4

$$a5 = e^{(a1 + \log_e(a2) - a3)} + \max(a1)$$

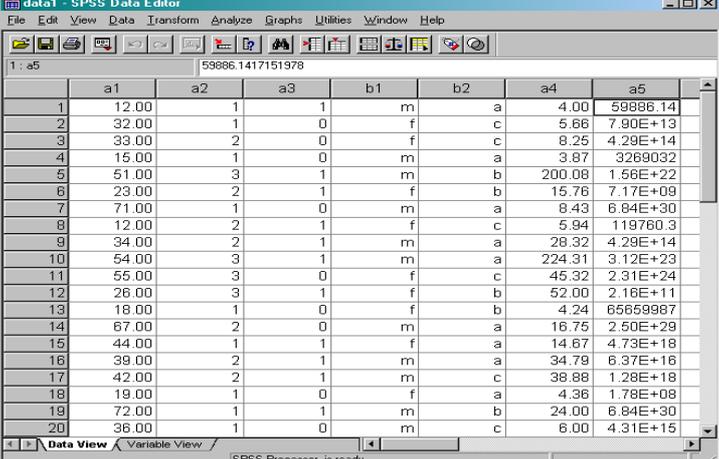
Ln



SPSS

OK

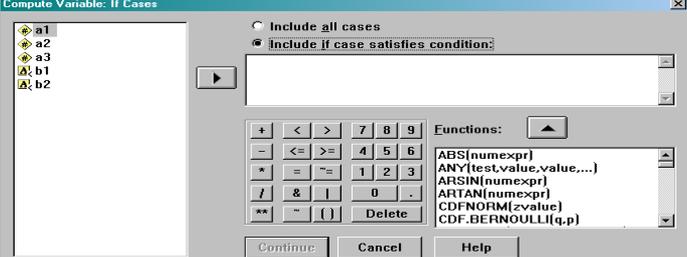
a5



	a1	a2	a3	b1	b2	a4	a5
1	12.00	1	1	m	a	4.00	59888.14
2	32.00	1	0	f	c	5.66	7.90E+13
3	33.00	2	0	f	c	8.25	4.29E+14
4	15.00	1	0	m	a	3.87	3269032
5	51.00	3	1	m	b	200.08	1.56E+22
6	23.00	2	1	f	b	15.76	7.17E+09
7	71.00	1	0	m	a	8.43	6.84E+30
8	12.00	2	1	f	c	5.94	119760.3
9	34.00	2	1	m	a	28.32	4.29E+14
10	54.00	3	1	m	a	224.31	3.12E+23
11	55.00	3	0	f	c	45.32	2.31E+24
12	26.00	3	1	f	b	52.00	2.16E+11
13	18.00	1	0	f	b	4.24	65659987
14	67.00	2	0	m	a	16.75	2.50E+29
15	44.00	1	1	f	a	14.67	4.73E+18
16	39.00	2	1	m	a	34.79	6.37E+16
17	42.00	2	1	m	c	38.88	1.28E+18
18	19.00	1	0	f	a	4.36	1.78E+08
19	72.00	1	1	m	b	24.00	6.84E+30
20	36.00	1	0	m	c	6.00	4.31E+15

IF SPSS
 IF .EXCEL

IF



Include all cases
 Include if case satisfies condition:

Functions:
 ABS(numexpr)
 ANY(test,value,value,...)
 ARSIN(numexpr)
 ARTAN(numexpr)
 CDFNORM(zvalue)
 CDF.BERNOULLI(q,p)

.Include all cases

)

(IF

a4

IF

$$a4 = (a1 ** ((a2 + a3) / 2)) / (a2 ** 2 + (a3 + a2 * a3))$$

IF

40

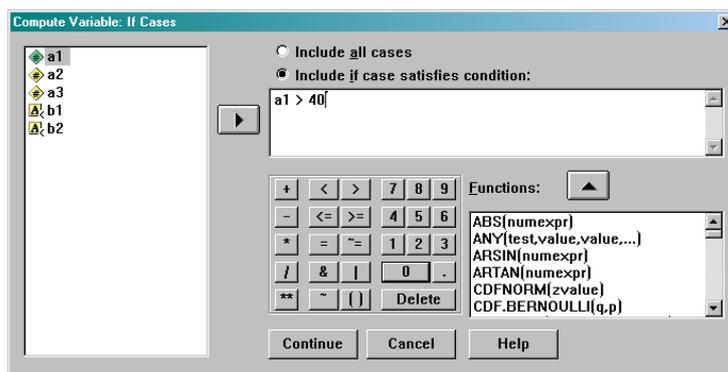
a1

IF

.a4

compute

IF



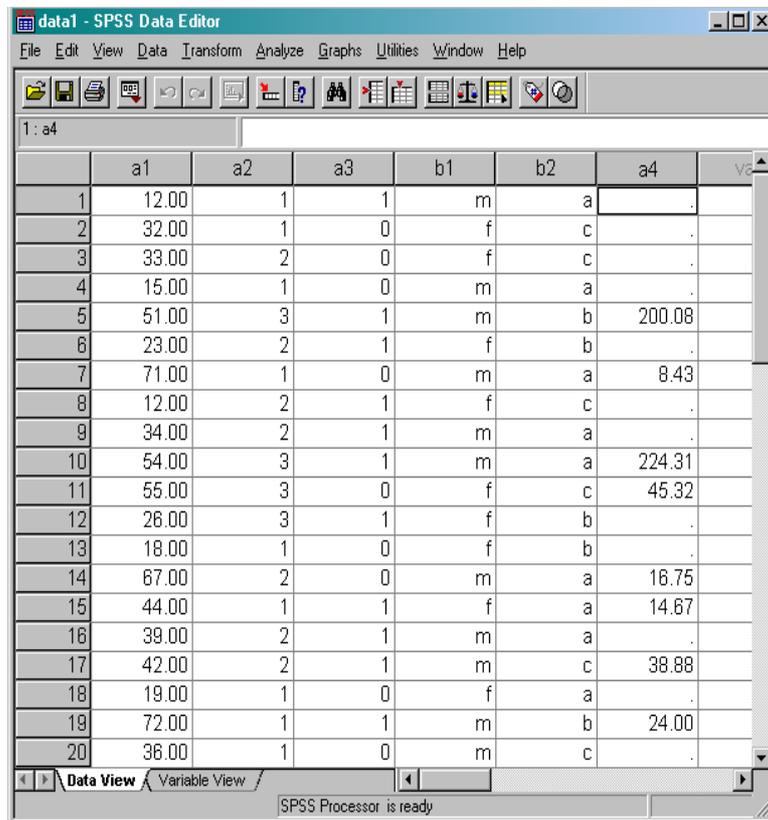
(Continue)

OK

a4

a4

a4



	a1	a2	a3	b1	b2	a4	v2
1	12.00	1	1	m	a	.	.
2	32.00	1	0	f	c	.	.
3	33.00	2	0	f	c	.	.
4	15.00	1	0	m	a	.	.
5	51.00	3	1	m	b	200.08	.
6	23.00	2	1	f	b	.	.
7	71.00	1	0	m	a	8.43	.
8	12.00	2	1	f	c	.	.
9	34.00	2	1	m	a	.	.
10	54.00	3	1	m	a	224.31	.
11	55.00	3	0	f	c	45.32	.
12	26.00	3	1	f	b	.	.
13	18.00	1	0	f	b	.	.
14	67.00	2	0	m	a	16.75	.
15	44.00	1	1	f	a	14.67	.
16	39.00	2	1	m	a	.	.
17	42.00	2	1	m	c	38.88	.
18	19.00	1	0	f	a	.	.
19	72.00	1	1	m	b	24.00	.
20	36.00	1	0	m	c	.	.

Transformation **تحويل المتغيرات** ❖

(Transform)

SPSS

(compute)

(Transform)

SPSS

(Transform)

▪ **دالة العدد COUNT**

(count)

SPSS

(Transform)

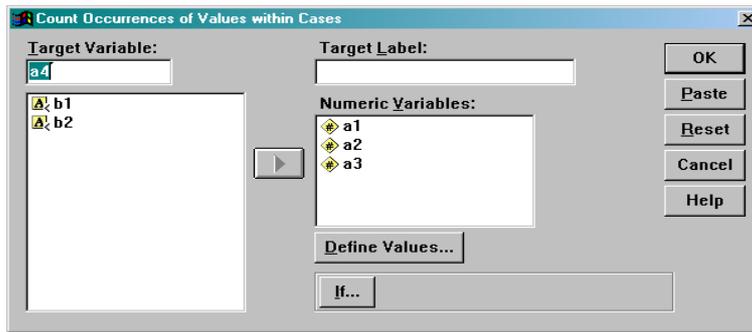
()

()

(5)

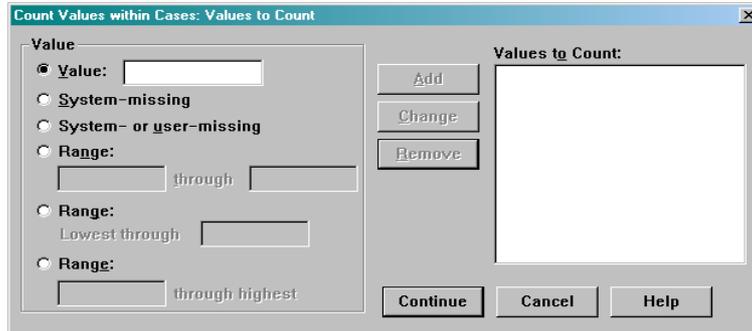
Transform count count

:



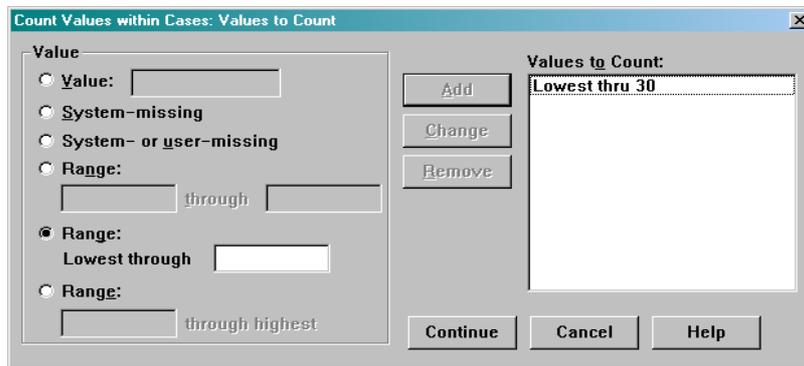
)
(Target a4 (Variable)
(Numeric Variables)

Define Value...



count

a3 a2 a1
.a4 30

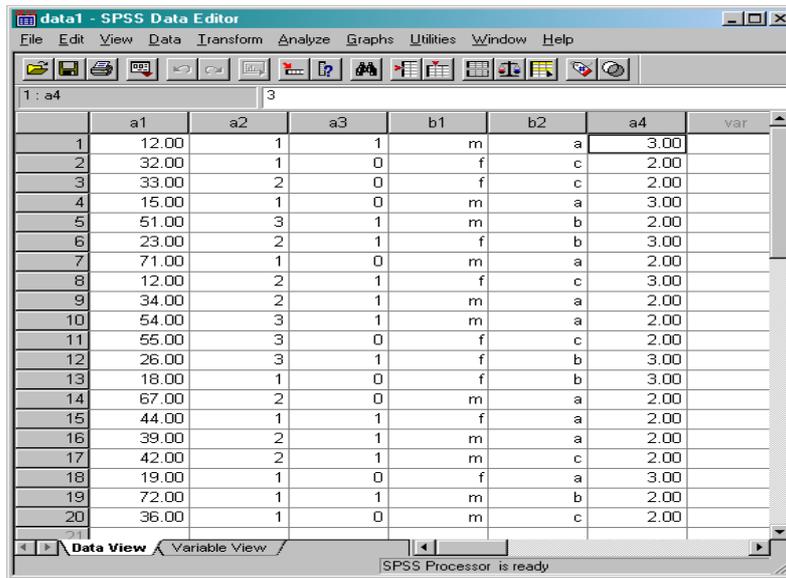


(Value)

(Values to Count)

(Continue)

:



	a1	a2	a3	b1	b2	a4	var
1	12.00	1	1	m	a	3.00	
2	32.00	1	0	f	c	2.00	
3	33.00	2	0	f	c	2.00	
4	15.00	1	0	m	a	3.00	
5	51.00	3	1	m	b	2.00	
6	23.00	2	1	f	b	3.00	
7	71.00	1	0	m	a	2.00	
8	12.00	2	1	f	c	3.00	
9	34.00	2	1	m	a	2.00	
10	54.00	3	1	m	a	2.00	
11	55.00	3	0	f	c	2.00	
12	26.00	3	1	f	b	3.00	
13	18.00	1	0	f	b	3.00	
14	67.00	2	0	m	a	2.00	
15	44.00	1	1	f	a	2.00	
16	39.00	2	1	m	a	2.00	
17	42.00	2	1	m	c	2.00	
18	19.00	1	0	f	a	3.00	
19	72.00	1	1	m	b	2.00	
20	36.00	1	0	m	c	2.00	

▪ إعادة الترميز RECODE

(Recode)

SPSS

Transform recode

(Into Same Variables)

.(Into Different variables)

(Discret)

(continuous)

a12

a1

:

$$a12 = \begin{cases} 1 & \forall a1 \leq 15 \\ 2 & \forall 15 < a1 \leq 30 \\ 3 & \forall 30 < a1 \leq 45 \\ 4 & \forall 45 < a1 \leq 60 \\ 5 & \forall 60 < a1 \end{cases}$$

" " ∇

record

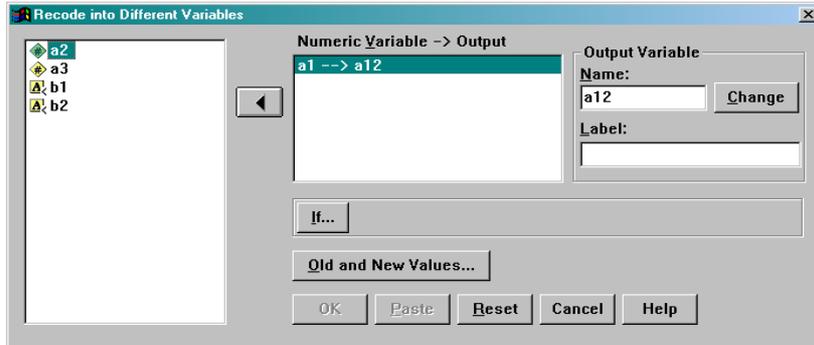
Into Different variables

a1

change

a12

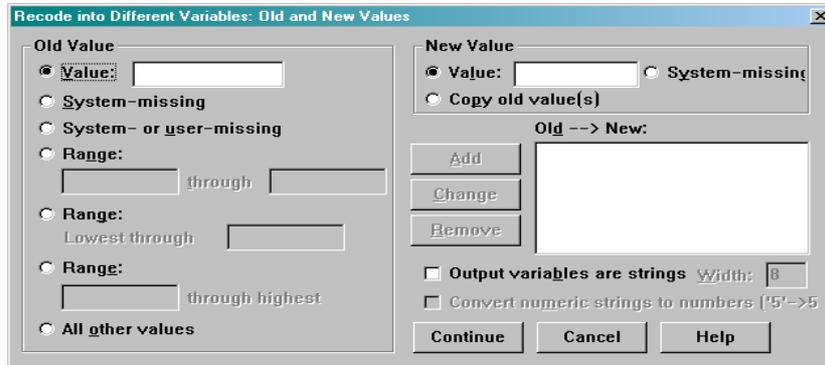
:



Old and New (Values...)

(Old Value)

.(New Value)



a1

:

Recode into Different Variables: Old and New Values

Old Value

Value:

System-missing

System- or user-missing

Range:
 through

Range:
Lowest through

Range:
 through highest

All other values

New Value

Value: System-missing

Copy old value(s)

Old --> New:

Add Change Remove

Lowest thru 15 --> 1
15 thru 30 --> 2
30 thru 45 --> 3
45 thru 60 --> 4
60 thru Highest --> 5

Output variables are strings Width:

Convert numeric strings to numbers ('5'-->5)

Continue Cancel Help

(OK)

(continue)

:

data1 - SPSS Data Editor

File Edit View Data Transform Analyze Graphs Utilities Window Help

1 : a1 12

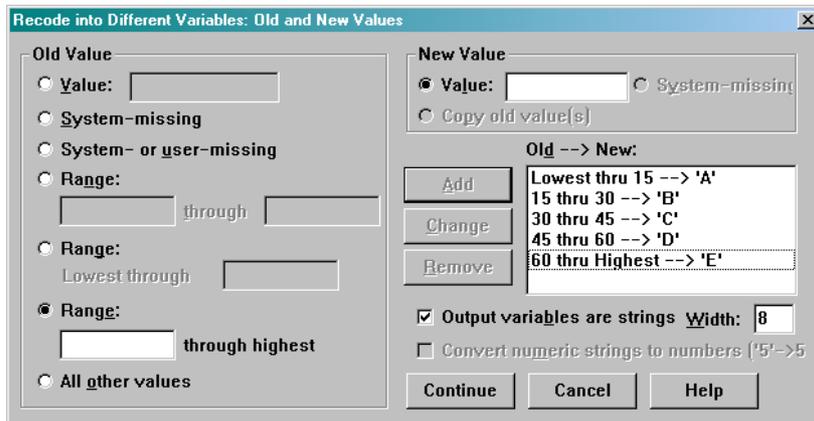
	a1	a2	a3	b1	b2	a12	var
1	12.00	1	1	m	a	1.00	
2	32.00	1	0	f	c	3.00	
3	33.00	2	0	f	c	3.00	
4	15.00	1	0	m	a	1.00	
5	51.00	3	1	m	b	4.00	
6	23.00	2	1	f	b	2.00	
7	71.00	1	0	m	a	5.00	
8	12.00	2	1	f	c	1.00	
9	34.00	2	1	m	a	3.00	
10	54.00	3	1	m	a	4.00	
11	55.00	3	0	f	c	4.00	
12	26.00	3	1	f	b	2.00	
13	18.00	1	0	f	b	2.00	
14	67.00	2	0	m	a	5.00	
15	44.00	1	1	f	a	3.00	
16	39.00	2	1	m	a	3.00	
17	42.00	2	1	m	c	3.00	
18	19.00	1	0	f	a	2.00	
19	72.00	1	1	m	b	4.00	
20	36.00	1	0	m	c	3.00	

Data View Variable View

SPSS Processor is ready

.Output variables are strings

$$a12 = \begin{cases} A & \forall a1 \leq 15 \\ B & \forall 15 < a1 \leq 30 \\ C & \forall 30 < a1 \leq 45 \\ D & \forall 45 < a1 \leq 60 \\ E & \forall 60 < a1 \end{cases}$$



Recode into Different Variables: Old and New Values

Old Value

Value: []

System-missing

System- or user-missing

Range: [] through []

Range: Lowest through []

Range: [] through highest

All other values

New Value

Value: [] System-missing

Copy old value(s)

Old --> New:

Add Change Remove

Lowest thru 15 --> 'A'

15 thru 30 --> 'B'

30 thru 45 --> 'C'

45 thru 60 --> 'D'

60 thru Highest --> 'E'

Output variables are strings Width: 8

Convert numeric strings to numbers ('5' -> 5)

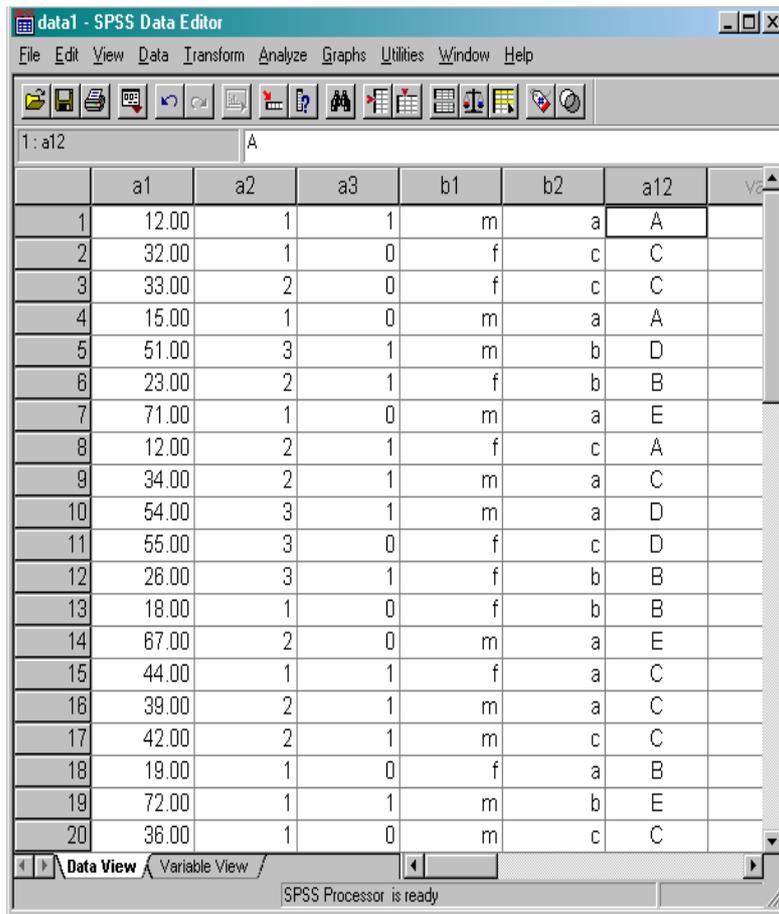
Continue Cancel Help

(OK)

(Continue)

(Recode into different variable)

a12



The screenshot shows the SPSS Data Editor window for a file named 'data1'. The window title is 'data1 - SPSS Data Editor'. The menu bar includes File, Edit, View, Data, Transform, Analyze, Graphs, Utilities, Window, and Help. The toolbar contains various icons for file operations and data manipulation. The main area displays a data table with the following columns: a1, a2, a3, b1, b2, and a12. The data is as follows:

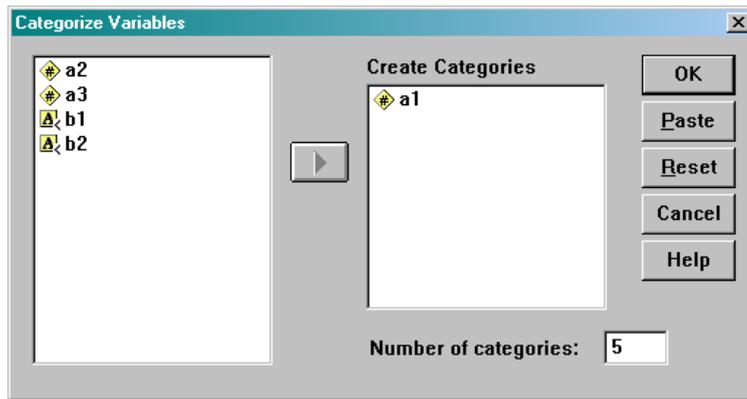
	a1	a2	a3	b1	b2	a12	vs
1	12.00	1	1	m	a	A	
2	32.00	1	0	f	c	C	
3	33.00	2	0	f	c	C	
4	15.00	1	0	m	a	A	
5	51.00	3	1	m	b	D	
6	23.00	2	1	f	b	B	
7	71.00	1	0	m	a	E	
8	12.00	2	1	f	c	A	
9	34.00	2	1	m	a	C	
10	54.00	3	1	m	a	D	
11	55.00	3	0	f	c	D	
12	26.00	3	1	f	b	B	
13	18.00	1	0	f	b	B	
14	67.00	2	0	m	a	E	
15	44.00	1	1	f	a	C	
16	39.00	2	1	m	a	C	
17	42.00	2	1	m	c	C	
18	19.00	1	0	f	a	B	
19	72.00	1	1	m	b	E	
20	36.00	1	0	m	c	C	

The status bar at the bottom indicates 'SPSS Processor is ready'.

تصنيف المتغيرات Categorize Variables

SPSS

Transform (Categorize Variables)



(categories)

(Number of categories)

.. 3 2 1

SPSS

The screenshot shows the SPSS Data Editor window titled 'data1 - SPSS Data Editor'. The window contains a data table with 20 rows and 7 columns. The columns are labeled 'a1', 'a2', 'a3', 'b1', 'b2', 'na1', and 'var'. The data is as follows:

	a1	a2	a3	b1	b2	na1	var
1	12.00	1	1	m	a	1	
2	32.00	1	0	f	c	2	
3	33.00	2	0	f	c	3	
4	15.00	1	0	m	a	1	
5	51.00	3	1	m	b	4	
6	23.00	2	1	f	b	2	
7	71.00	1	0	m	a	5	
8	12.00	2	1	f	c	1	
9	34.00	2	1	m	a	3	
10	54.00	3	1	m	a	4	
11	55.00	3	0	f	c	5	
12	26.00	3	1	f	b	2	
13	18.00	1	0	f	b	1	
14	67.00	2	0	m	a	5	
15	44.00	1	1	f	a	4	
16	39.00	2	1	m	a	3	
17	42.00	2	1	m	c	4	
18	19.00	1	0	f	a	2	
19	72.00	1	1	m	b	5	
20	36.00	1	0	m	c	3	

The status bar at the bottom indicates 'SPSS Processor is ready'.

na1

(Variable View)

categorize variables

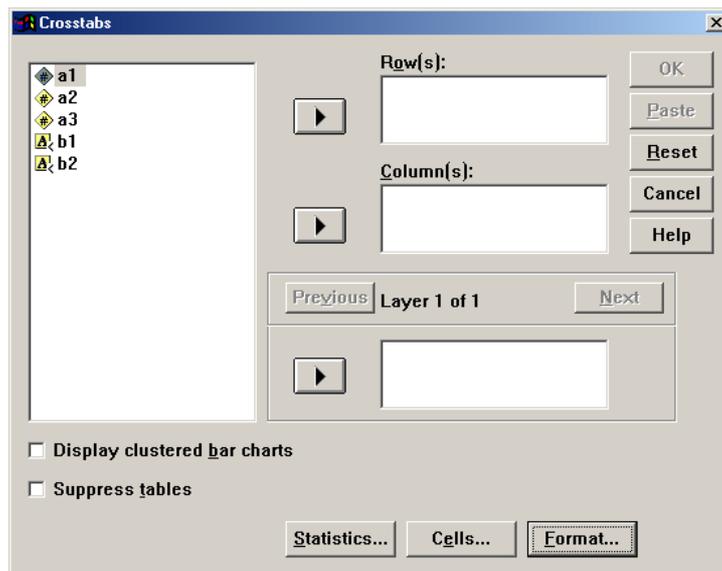
(recode)

categorize variable

Crosstabs الجداول المحورية ❖

()
.()
()
4×2
.4×2

SPSS
Analyze () **Descriptive Statistics**
() **Crosstabs** ()



.Rows

SPSS

b2 a2

(OK)

:

Case Processing Summary

	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
A2 * B2	20	100.0%	0	0%	20	100.0%

A2 * B2 Crosstabulation

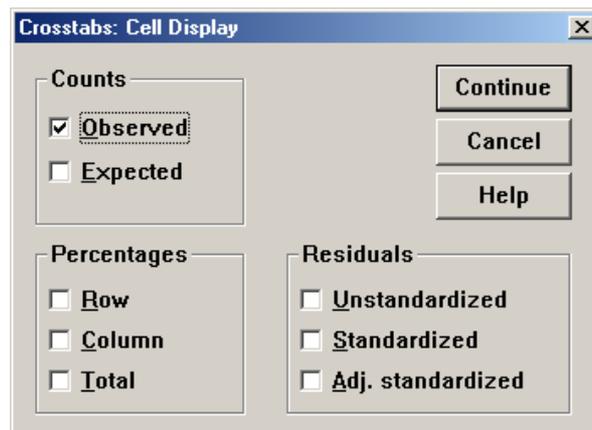
Count		B2			Total
		a	b	c	
A2	1	5	2	2	9
	2	3	1	3	7
	3	1	2	1	4
Total		9	5	6	20

.3x3

SPSS

() Cells

:



(Counts)

)

(

