

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

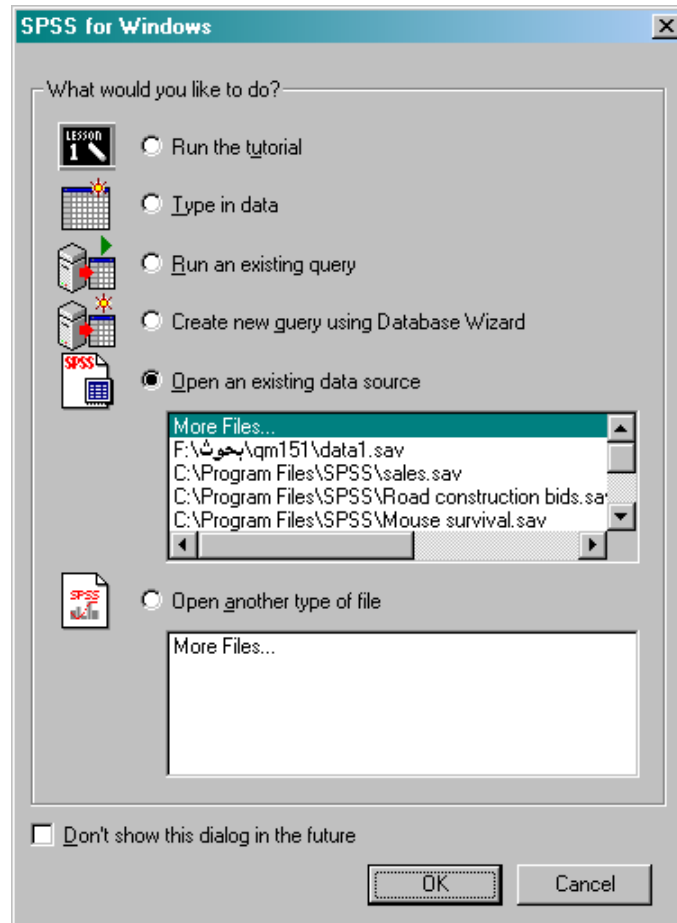
Data **البيانات** ❖

SPSS

SPSS for Windows

SPSS

:



(tutorial)

SPSS

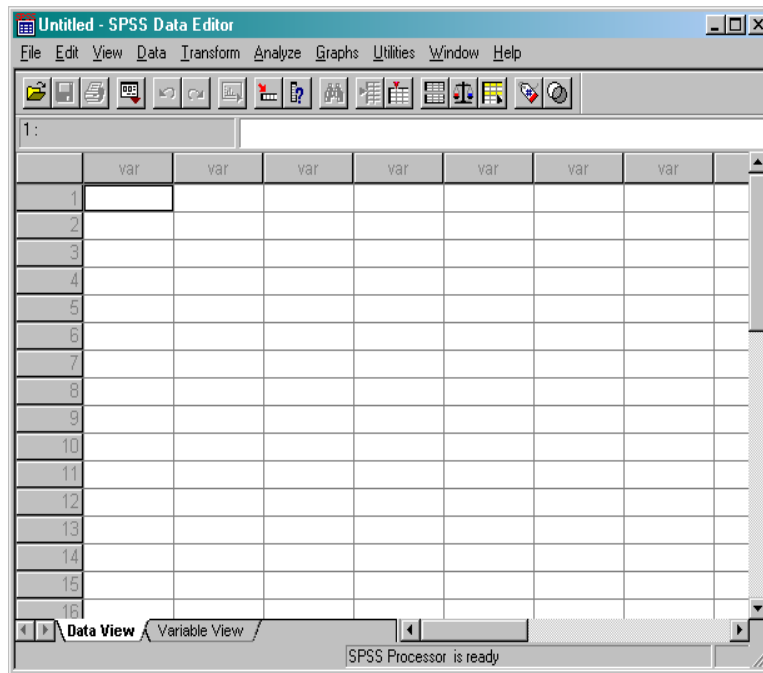


SPSS

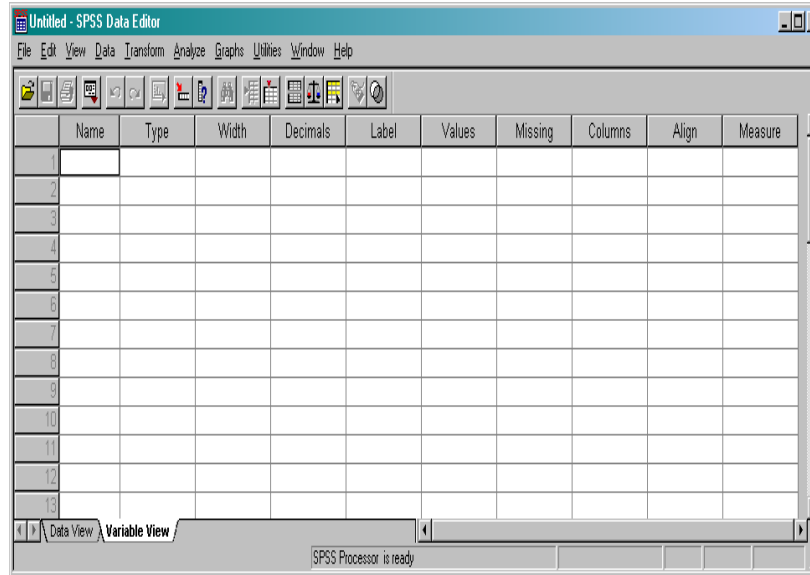
SPSS
(Data View)

:

(Variable View)



Variable View



▪ اسم المتغير :Name

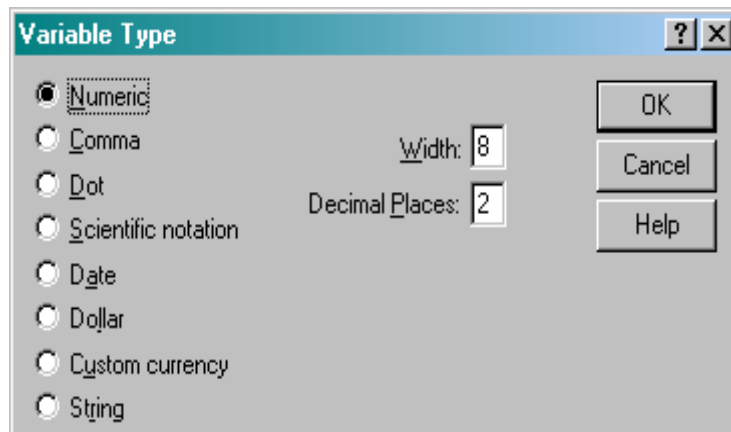
(\$ # @ . _ :)

▪ 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)

Untitled - SPSS Data Editor

File Edit View Data Transform Analyze Graphs Utilities Window Help

1 : var00001 11245.3258

	var00001	var00002	var00000	var00004	var
1	11245.33	11245.33	11245	1.1245E+04	
2	562.00	562.00	562,00	5.6200E+02	
3	8546.20	8,546.20	8546,2	8.5462E+03	
4	.00	.00	.00	2.5460E-05	
5	1.00	1.00	1,00	1.0002E+00	
6					

Data View Variable View

SPSS Processor is ready

y m d
 :

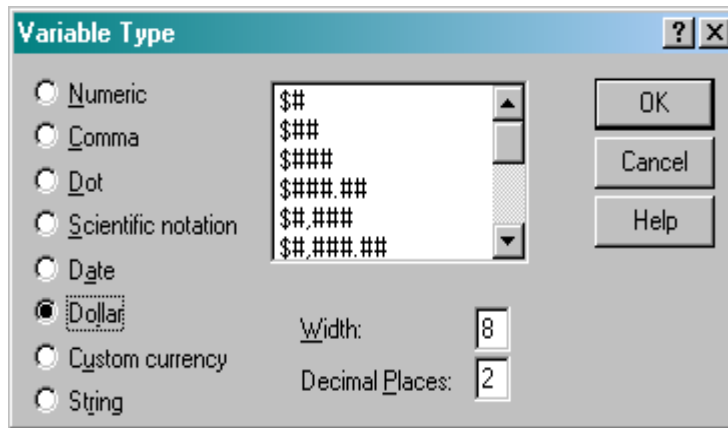
Variable Type

Numeric
 Comma
 Dot
 Scientific notation
 Date
 Dollar
 Custom currency
 String

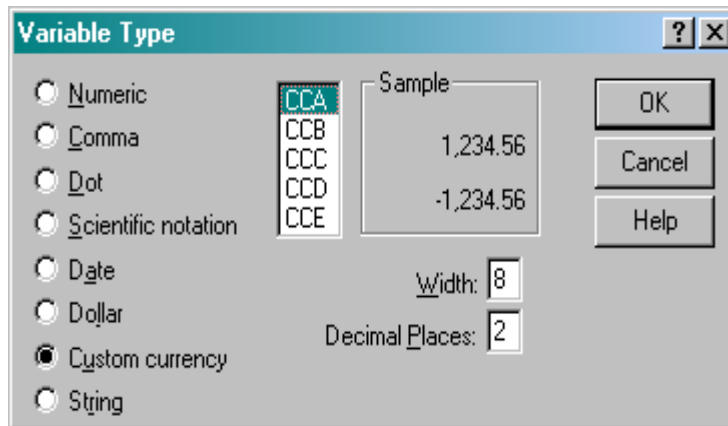
dd-mmm-yyyy
 dd-mmm-yy
 mm/dd/yyyy
 mm/dd/yy
 dd.mm.yyyy
 dd.mm.yy
 yyddd
 yyyyddd
 q Q yyyy
 q Q yy

OK
Cancel
Help

SPSS



:



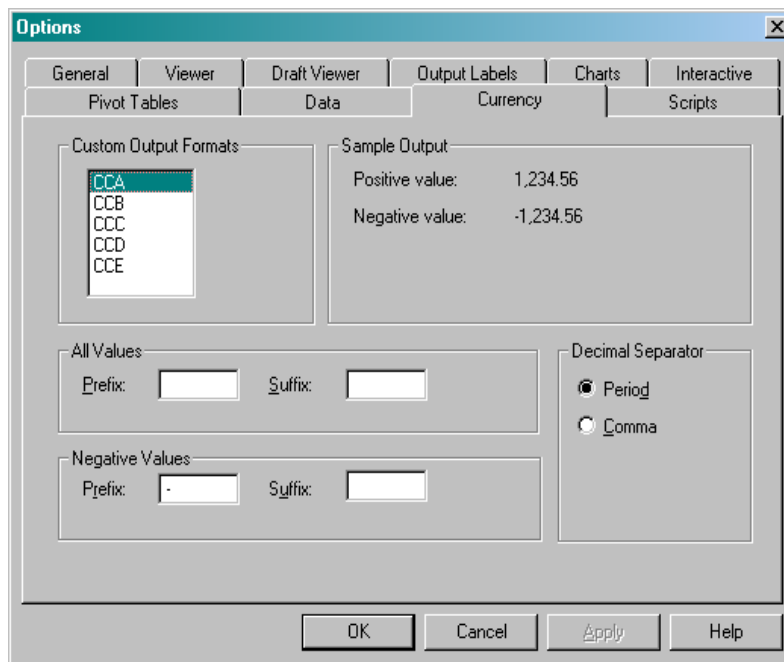
CCE CCD CCC CCB CCA

currency

Options

Edit

:

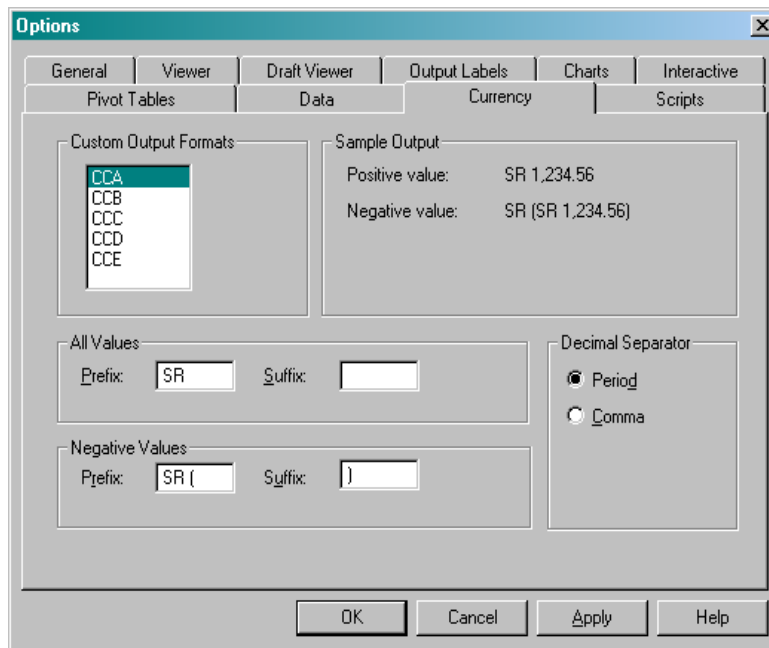


(Prefix)

(Suffix)

CCA

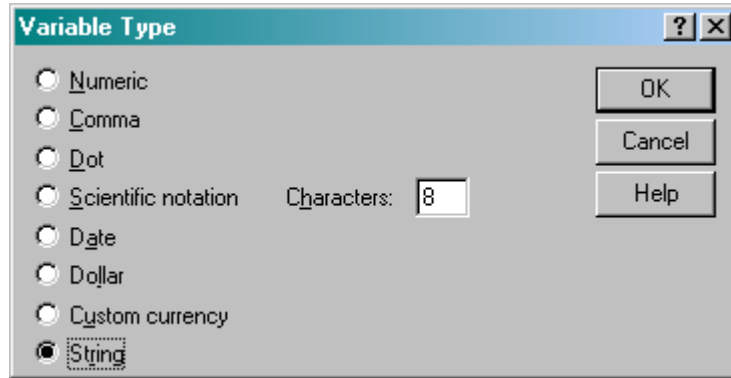
SR



String

.(Variable Type)

:



▪ العرض Width:

▪ عدد الأرقام العشرية Decimals:

▪ العنوان Label:

▪ القيم :Values

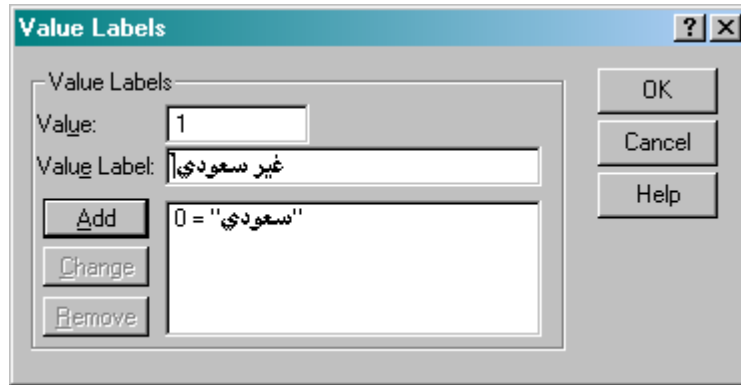
1 " " 0
f m " "
" " " "
:

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 rows are numbered 1 through 20. The 'الجنسية' column contains values 1 or 0, and the 'الجنس' column contains 'm' or 'f'. The '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		

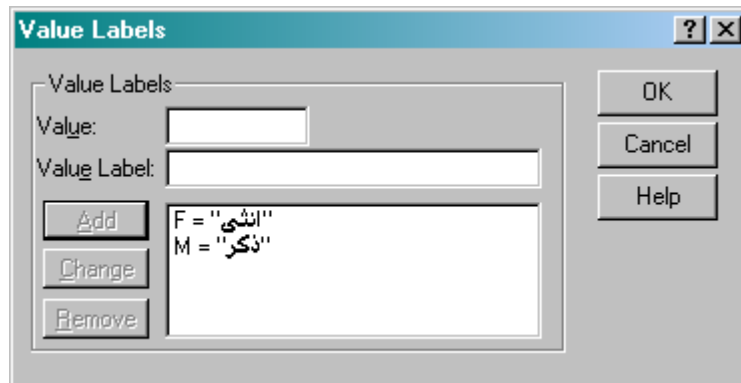
values

.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 structure:

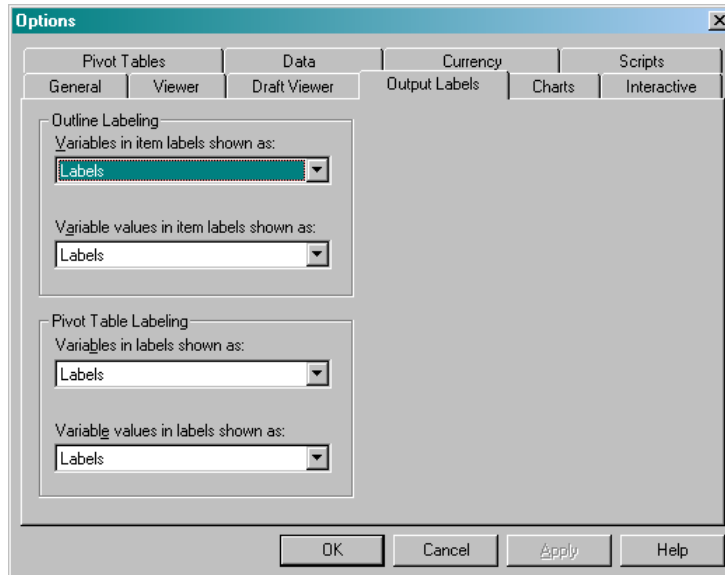
	الجنسية	الجنس	var	var	var
1	غير سعودي	m			
2	سعودي	f			
3	سعودي	f			
4	سعودي	m			
5	غير سعودي	m			
6	غير سعودي	f			
7	سعودي	m			
8	غير سعودي	f			
9	غير سعودي	m			
10	غير سعودي	m			
11	سعودي	f			
12	غير سعودي	f			
13	سعودي	f			
14	سعودي	m			
15	غير سعودي	f			
16	غير سعودي	m			
17	غير سعودي	m			
18	سعودي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

The status bar at the bottom indicates "Data View" is active and "SPSS Processor is ready".

SPSS

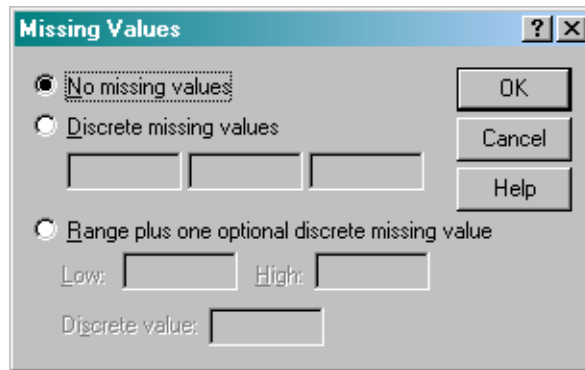
Edit options

:



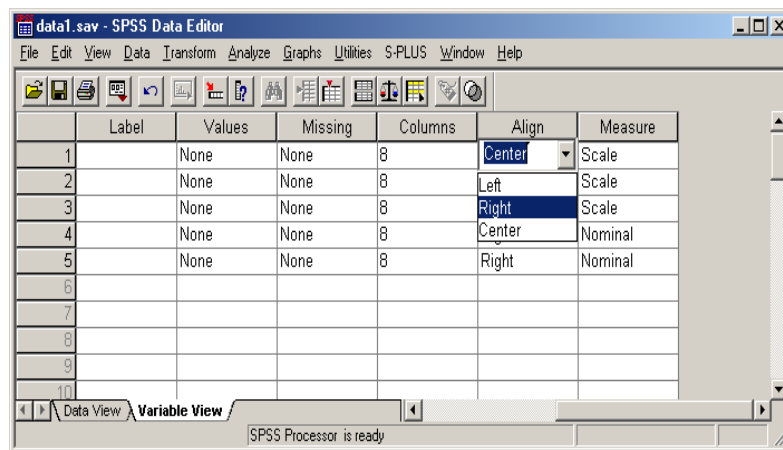
▪ القيم المفقودة :Missing

()



▪ 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)

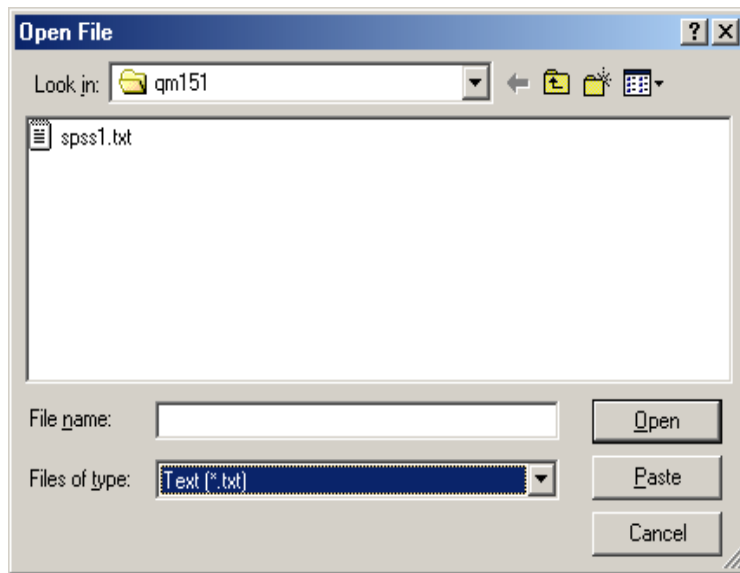
Files

Text

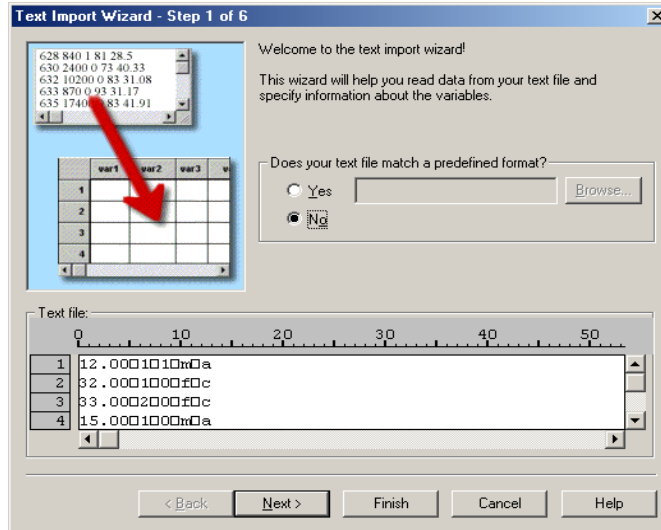
Open File

.() of Type

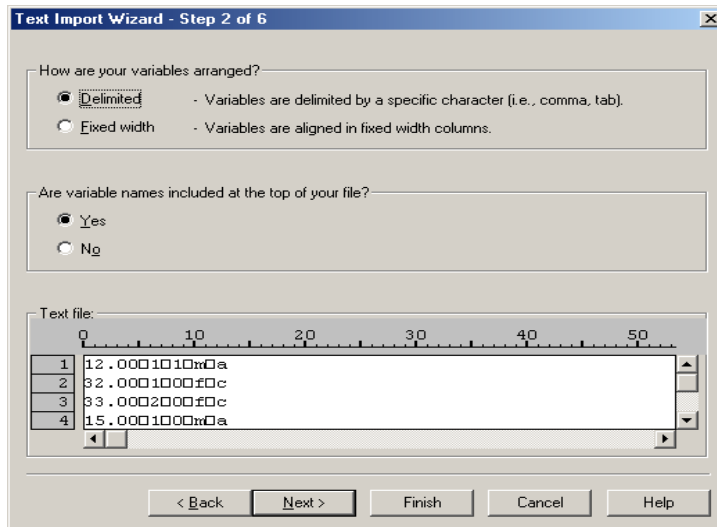
.() Open



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

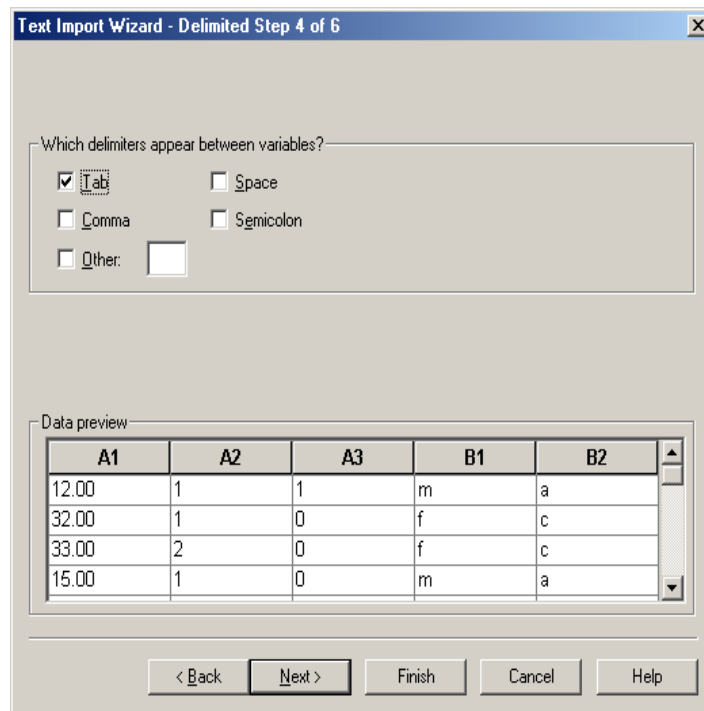
The first cases.

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

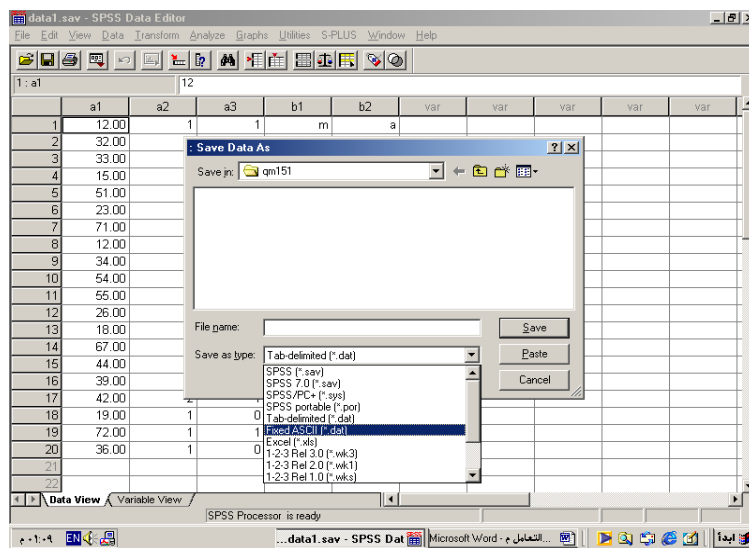
< Back Next > Finish Cancel Help

SPSS

Tab-delimited

Save As Type

Fixed ASCII



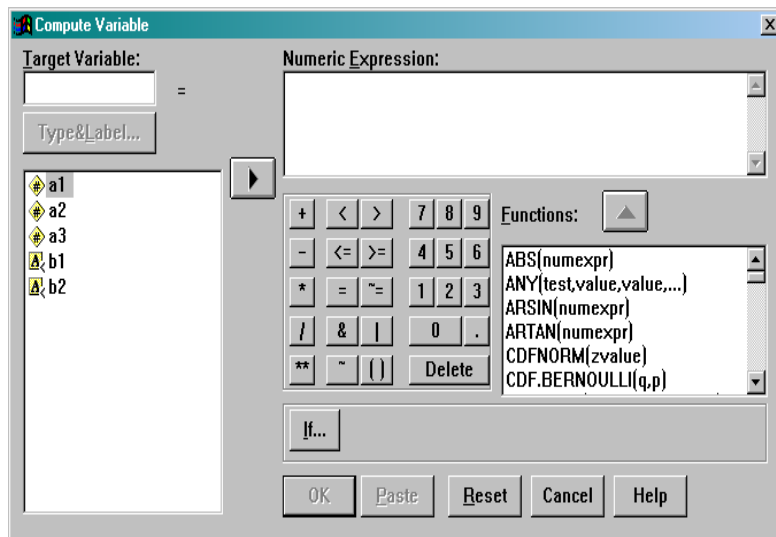
.SPSS

SPSS

EXCEL

(compute...)

.(Transform)



Target Variable

(Numeric Expression)

(Functions)

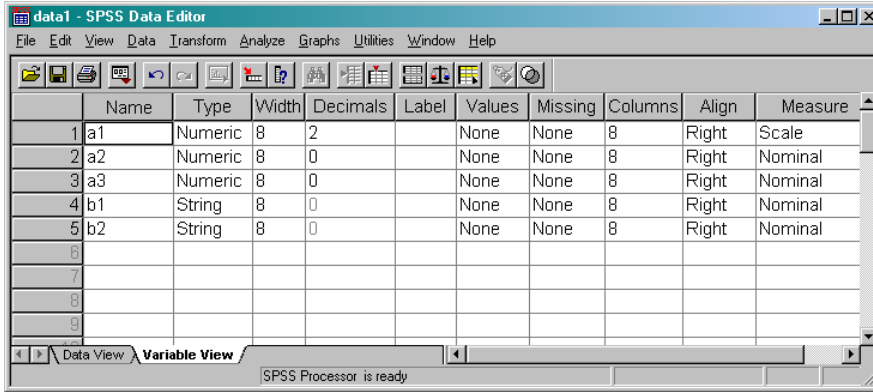
.

:

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

.

.

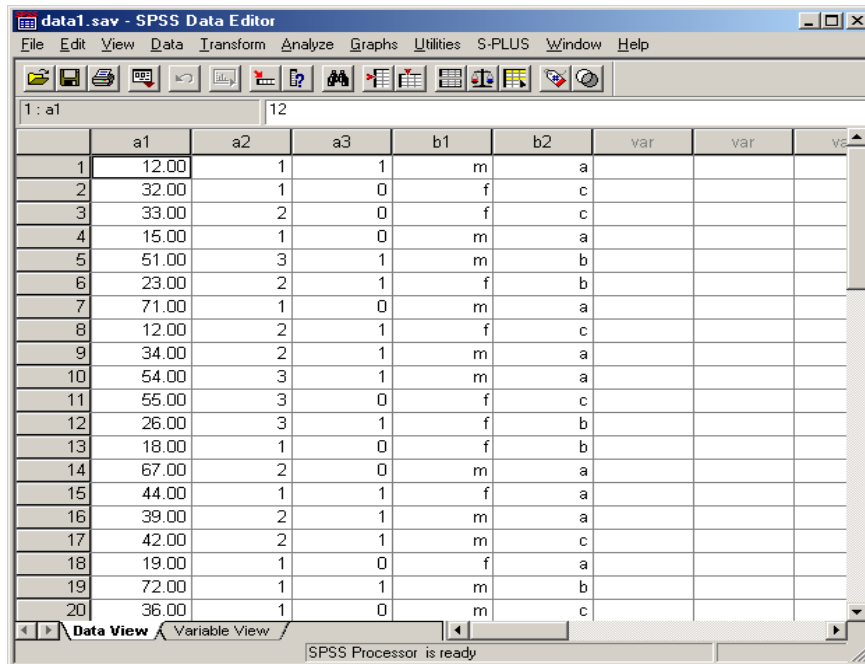


The screenshot shows the 'Variable View' of an SPSS Data Editor window. The table below represents the variable definitions shown in the interface.

	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

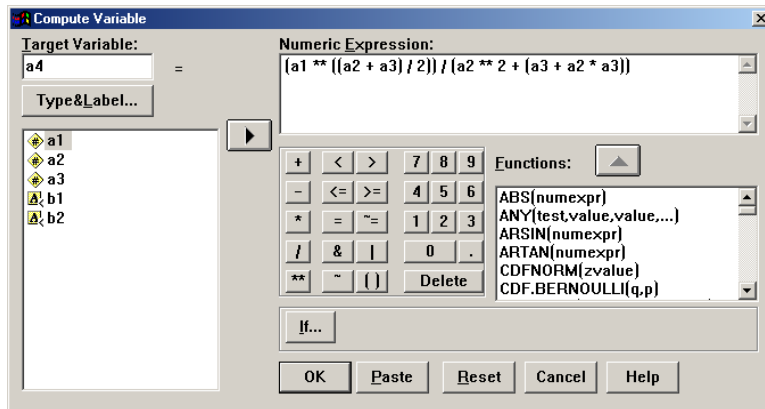
:

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

SPSS

(Compute)

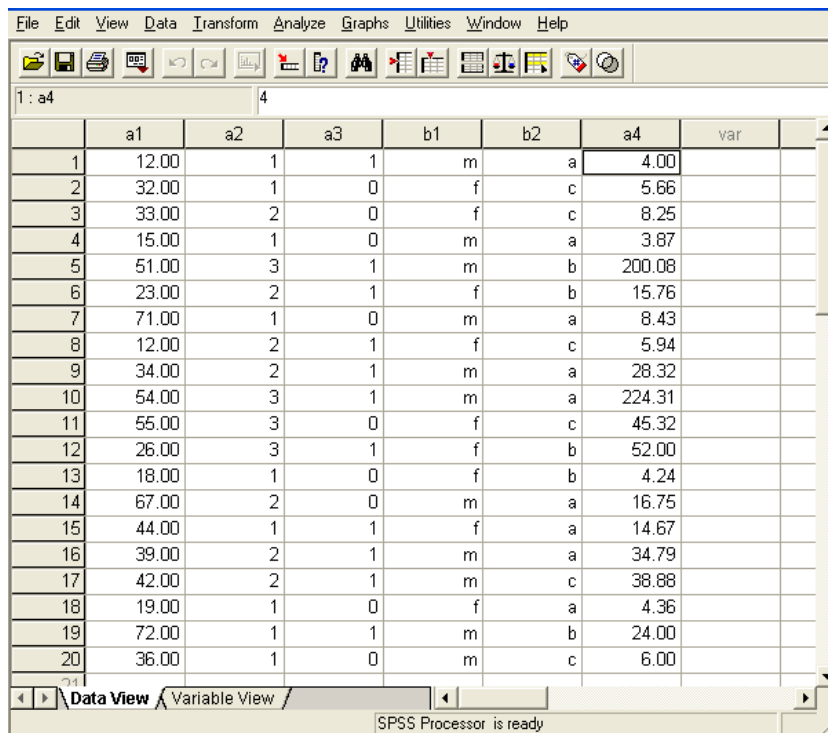
:



Target Variable

(OK)

a4

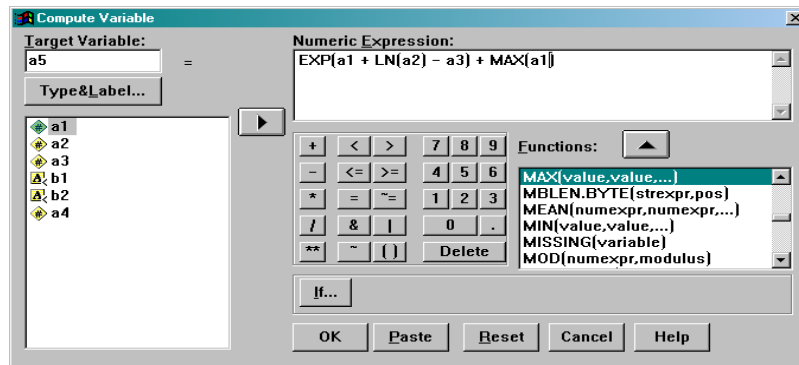


	a1	a2	a3	b1	b2	a4	var
1	12.00	1	1	m	a	4.00	
2	32.00	1	0	f	c	5.66	
3	33.00	2	0	f	c	8.25	
4	15.00	1	0	m	a	3.87	
5	51.00	3	1	m	b	200.08	
6	23.00	2	1	f	b	15.76	
7	71.00	1	0	m	a	8.43	
8	12.00	2	1	f	c	5.94	
9	34.00	2	1	m	a	28.32	
10	54.00	3	1	m	a	224.31	
11	55.00	3	0	f	c	45.32	
12	26.00	3	1	f	b	52.00	
13	18.00	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

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

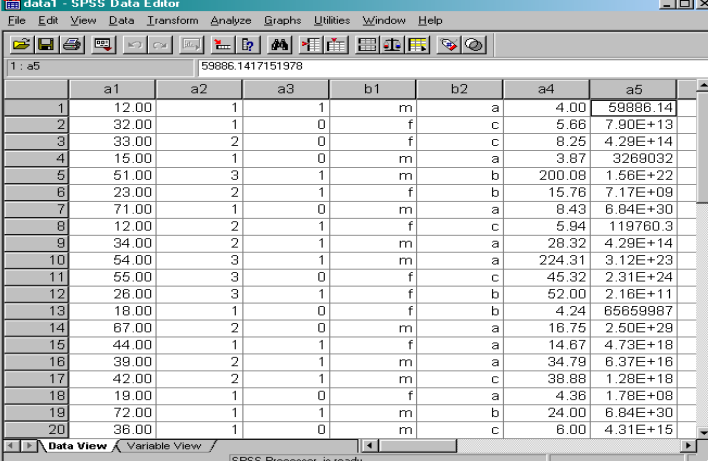
Ln



SPSS

OK

a5



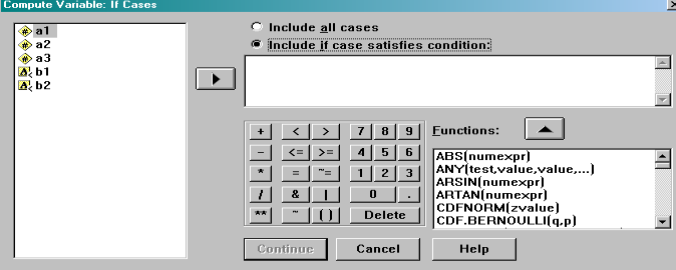
59886.1417151978

	a1	a2	a3	b1	b2	a4	a5
1	12.00	1	1	m	a	4.00	59886.14
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

SPSS Processor is ready

IF SPSS
 IF .EXCEL

IF



Compute Variable: If Cases

Include all cases
 Include if case satisfies condition:

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

.Include all cases

)

(IF

a4

IF

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

IF

40

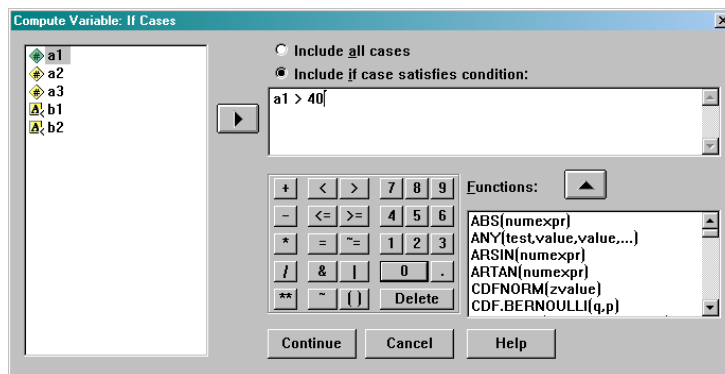
a1

IF

.a4

compute

IF



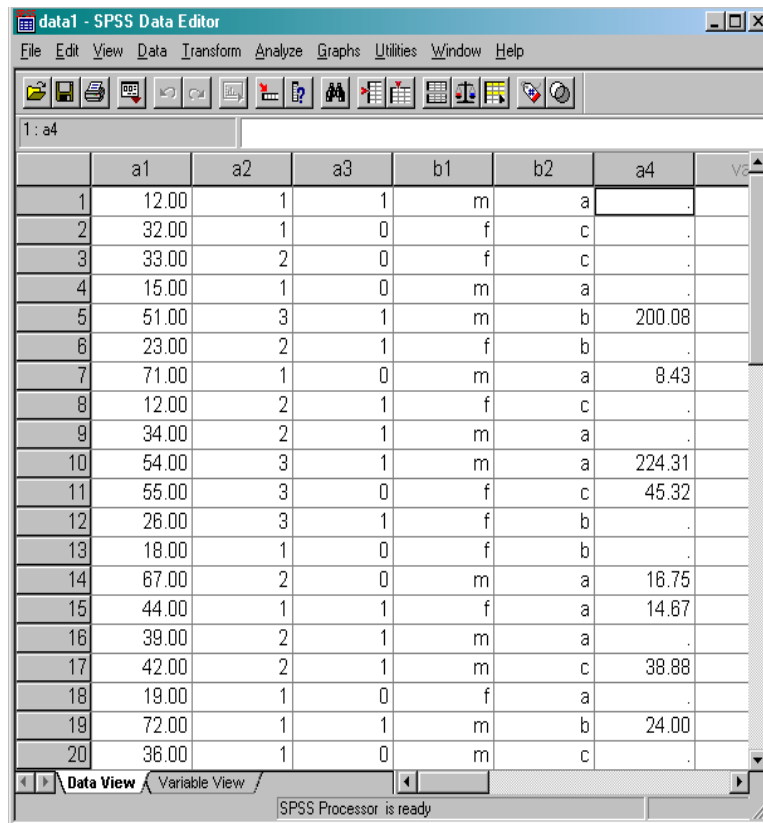
(Continue)

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)

▪ **COUNT دالة العد**

(count)

SPSS

(Transform)

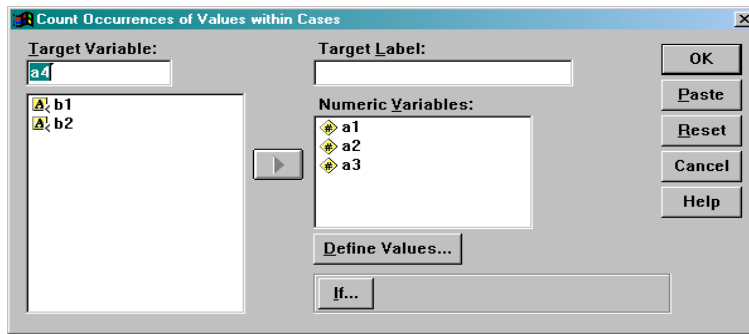
()

()

(5)

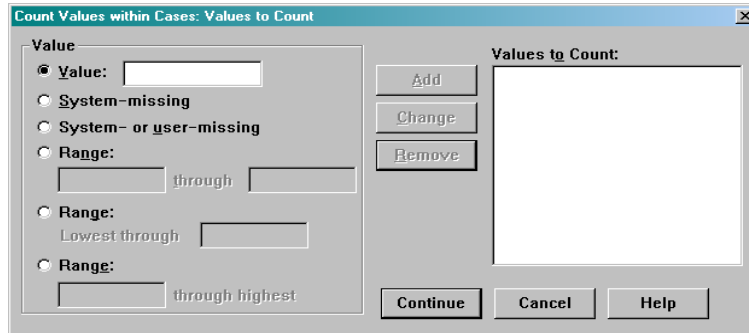
Transform count count

:



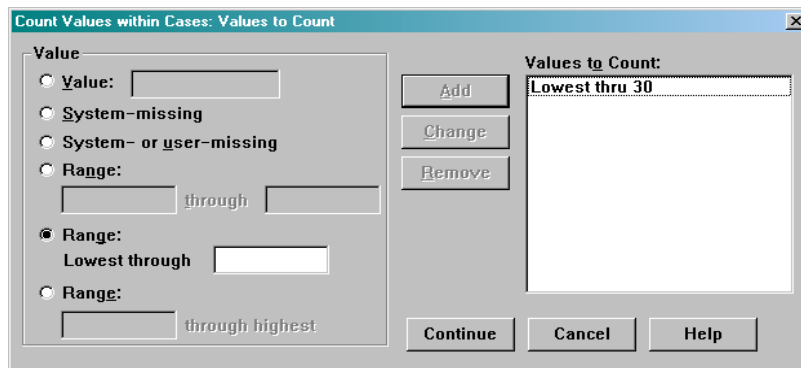
)
(Target a4 (Variable)
(Numeric Variables)

Define Value...



count

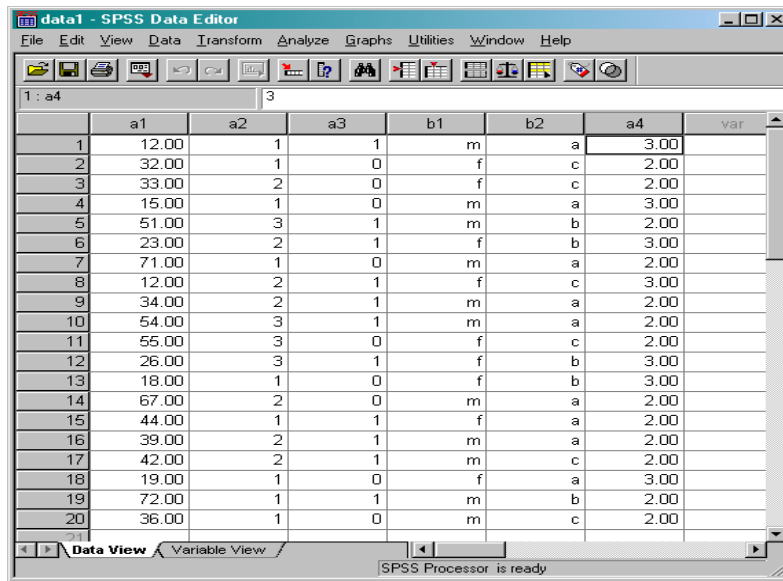
a3 a2 a1
.a4 30



(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

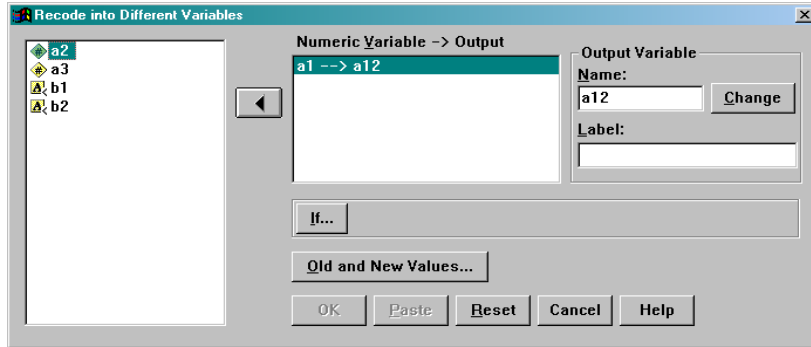
Into Different variables

a1

change

a12

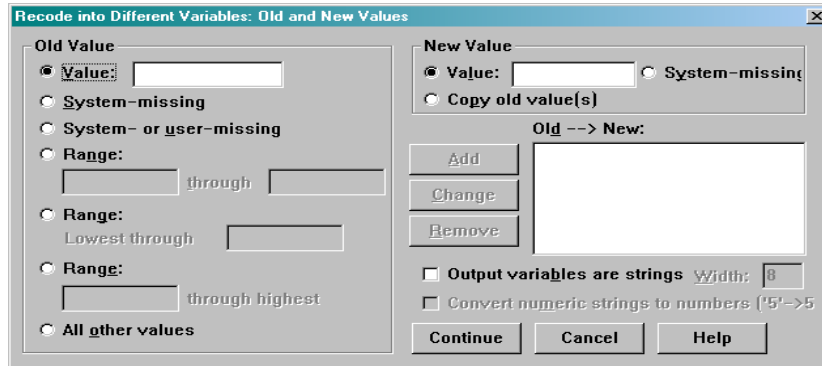
:



Old and New (Values...)

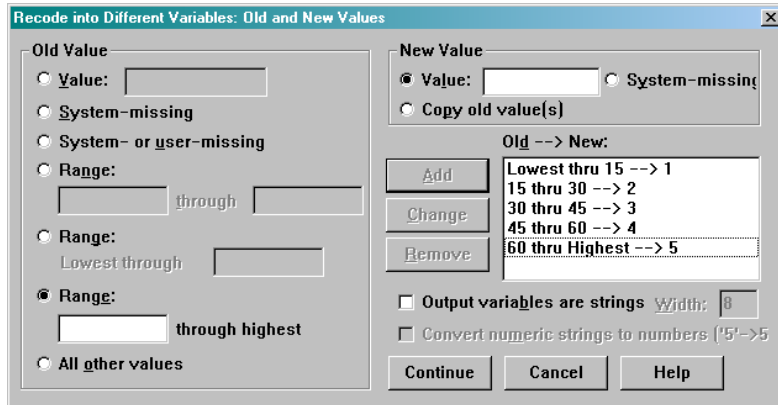
(Old Value)

.(New Value)



a1

:



(OK)

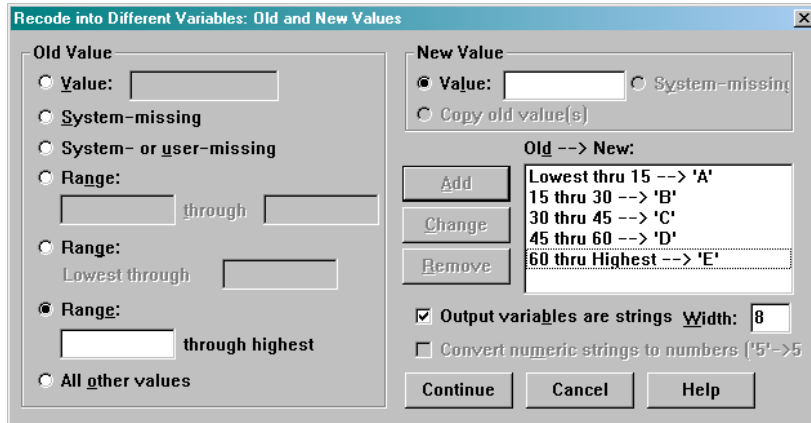
(continue)

:

	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	

.Output variables are strings

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

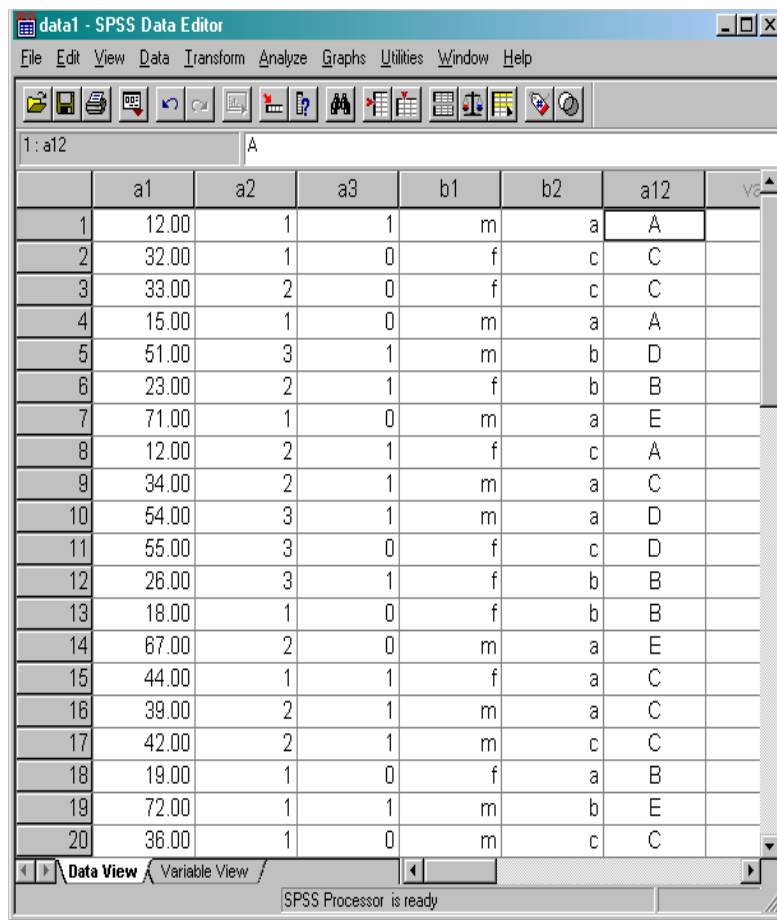


(OK)

(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 20 rows and 7 columns. The columns are labeled a1, a2, a3, b1, b2, a12, and VS. The data is as follows:

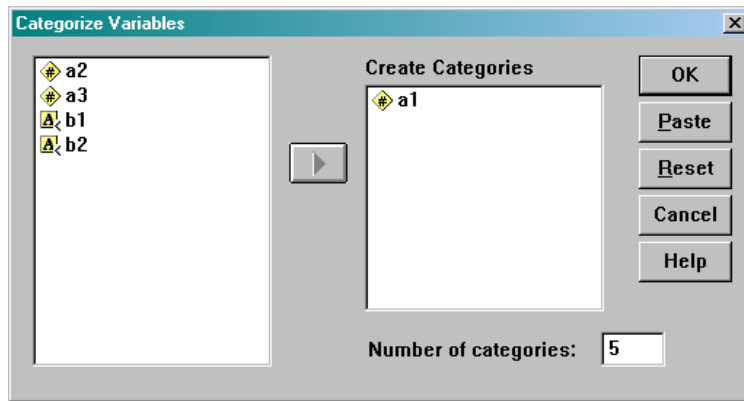
	a1	a2	a3	b1	b2	a12	VS
1	12.00	1	1	m	a	A	
2	32.00	1	0	f	c	C	
3	33.00	2	0	f	c	C	
4	15.00	1	0	m	a	A	
5	51.00	3	1	m	b	D	
6	23.00	2	1	f	b	B	
7	71.00	1	0	m	a	E	
8	12.00	2	1	f	c	A	
9	34.00	2	1	m	a	C	
10	54.00	3	1	m	a	D	
11	55.00	3	0	f	c	D	
12	26.00	3	1	f	b	B	
13	18.00	1	0	f	b	B	
14	67.00	2	0	m	a	E	
15	44.00	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	

na1

(Variable View)

categorize variables

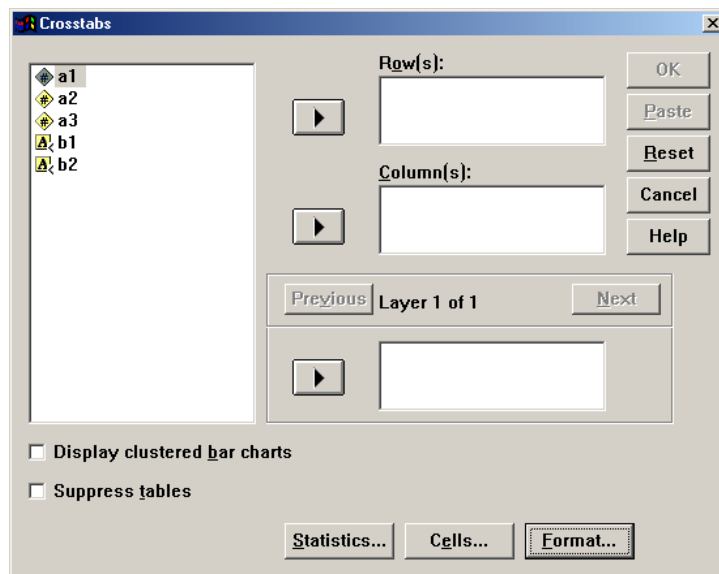
(recode)

categorize variable

Crosstabs الجداول المحورية ❖

()
.()
()
4×2
.4×2

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



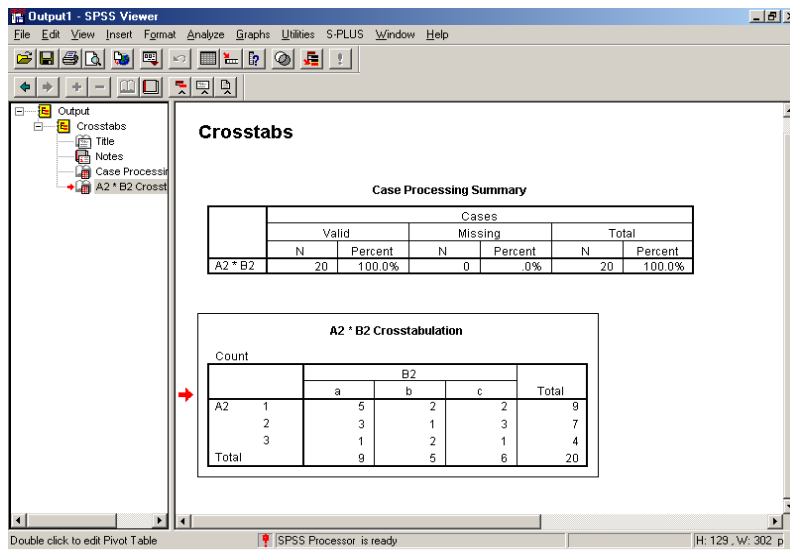
.Rows

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

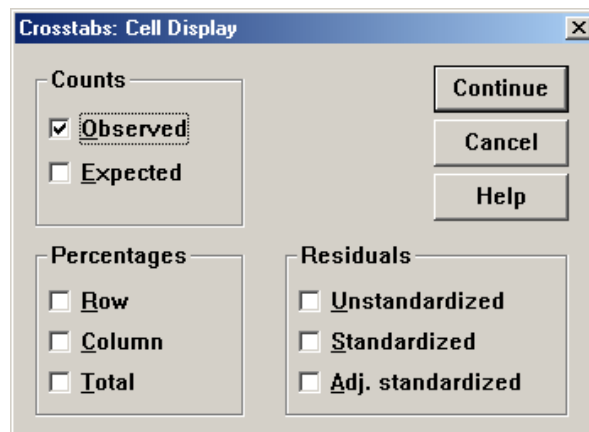
Count		B2			Total
		a	b	c	
A2	1	5	2	2	9
	2	3	1	3	7
	3	1	2	1	4
Total		9	5	6	20

.3x3

SPSS

() Cells

:



(Counts)

)

(

