

## Ch4 - Ex 1 - Child aggression (aggr) as a function of mother's education (educ) and authoritarian parenting style (auth).

CORR aggr educ auth /stat.

	Mean	Std. Deviation	N
aggr	39.680000	4.9473899	25
educ	10.400000	1.8708287	25
auth	19.800000	4.6636895	25

	aggr	educ
educ	-.467 .019	
auth	.739 .000	-.712 .000

REGR /DEP = aggr /ENTER auth educ  
/SAVE PRED(prdag.ae) RESID(resag.ae).

Model	R	R Square
1	.744	.554

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	325.201	2	162.601	13.641	.000
	Residual	262.239	22	11.920		
	Total	587.440	24			

Model		Unstandardized Coefficients			Sig.
		B	Std. Error	t	
1	(Constant)	19.096	9.137	2.090	.048
	auth	.874	.215	4.065	.001
	educ	.315	.536	.587	.563

	Mean	Std. Deviation	N
Predicted Value	39.680000	3.6810406	25
Residual	.0000000	3.3055419	25

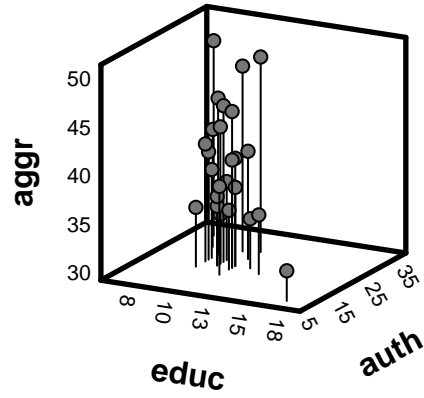
LIST /CASES = FROM 1 TO 10.

SUBJ	educ	auth	aggr	prdag.ae	resag.ae
1.0000	10.000	20.000	45.000	39.72887	5.27113
2.0000	11.000	23.000	40.000	42.66633	-2.66633
3.0000	11.000	14.000	38.000	34.79870	3.20130
4.0000	11.000	27.000	49.000	46.16305	2.83695
5.0000	11.000	19.000	40.000	39.16961	.83039
6.0000	11.000	17.000	35.000	37.42124	-2.42124
7.0000	9.0000	19.000	41.000	38.53977	2.46023
8.0000	17.000	7.0000	32.000	30.56893	1.43107
9.0000	13.000	17.000	35.000	38.05108	-3.05108
10.000	9.0000	21.000	38.000	40.28813	-2.28813

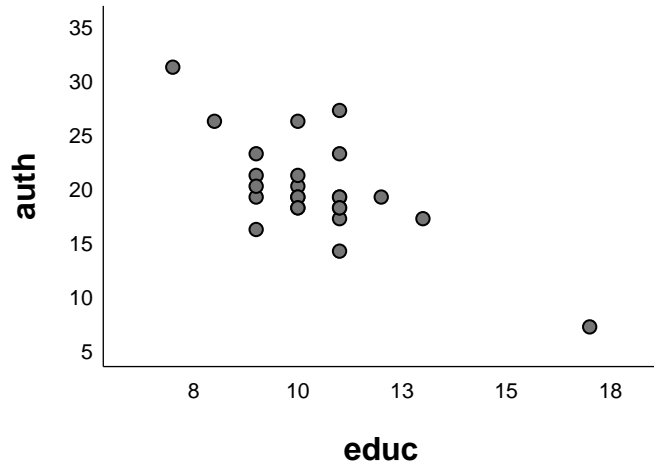
VARI LABEL prdag.ae '' resag.ae ''.  
CORR aggr auth educ prdag.ae resag.ae.

	aggr	auth	educ	prdag.ae
auth	.739			
educ	-.467	-.712		
prdag.ae	.744	.994	-.628	
resag.ae	.668	.000	.000	.000

GRAPH /SCATTERPLOT(XYZ)=auth WITH aggr WITH educ.



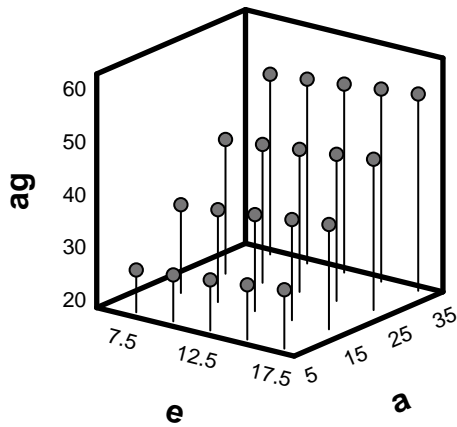
GRAPH /SCATTERPLOT(BIVAR)=educ WITH auth.



```

INPUT PROGRAM.
LOOP a = 5 TO 35 BY 10.
LEAVE a.
LOOP e = 7.5 TO 17.5 BY 2.5.
END CASE.
END LOOP.
END LOOP.
END FILE.
END INPUT PROGRAM.
COMPUTE ag = 19.096 + .874*a + .315*e.
GRAPH /SCATTERPLOT(XYZ)=a WITH ag WITH e.

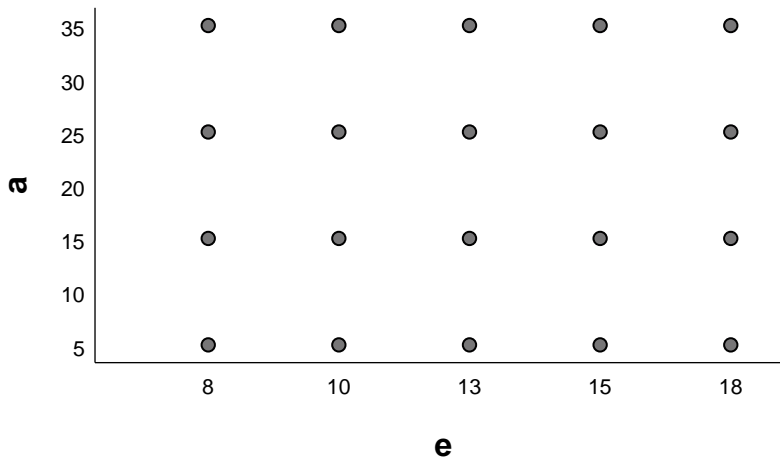
```



```

GRAPH /SCATTERPLOT(BIVAR)=e WITH a.

```



REGR /DEP = aggr /ENTER auth /ENTER educ.

Model	R	R Square
1	.739	.547
2	.744	.554

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	321.089	1	321.089	27.727	.000
	Residual	266.351	23	11.580		
	Total	587.440	24			
2	Regression	325.201	2	162.601	13.641	.000
	Residual	262.239	22	11.920		
	Total	587.440	24			

Model		Unstandardized Coefficients			Sig.
		B	Std. Error	t	
1	(Constant)	24.151	3.027	7.979	.000
	auth	.784	.149	5.266	
2	(Constant)	19.096	9.137	2.090	.048
	auth	.874	.215	4.065	
	educ	.315	.536	.587	

Commands to generate data for 4-Ex1.

```
SET WIDTH = 80 SEED = 21234567.  
INPUT PROGRAM.  
LOOP SUBJ = 1 TO 25.  
COMP #z1 = NORMAL(1).  
COMP #z2 = #z1*-.7071 + NORMAL(1)*.7071.  
END CASE.  
END LOOP.  
END FILE.  
END INPUT PROGRAM.  
COMP educ = RND(10 + 2*#z1).  
COMP auth = RND(20 + 5*#z2).  
COMP aggr = RND(40 +5*(#z2*.7071 + NORM(1)*.7071)).  
FORMAT subj educ auth aggr (F2.0).  
LIST.
```