

Datos Procedures 3

salario (ver programas proc 1)

exam

variables: est examen1-examen3;

1 75 86 77	6 78 77 89
2 87 98 88	7 88 89 86
3 67 56 78	8 45 32 37
4 99 96 97	9 55 66 77
5 56 77 66	10 17 10 27

Electric.dat

Variables: house income air appliance n_memb load;

3.2 34.990 7.0 7.789 4.0 7.518	2.8 31.145 5.5 7.284 4.0 6.656
1.3 14.160 0.5 3.652 4.0 2.349	2.7 29.524 5.5 6.715 4.0 6.283
4.1 22.962 3.0 5.854 1.0 5.059	2.2 23.424 1.0 5.625 1.0 3.400
2.3 24.535 5.0 4.975 2.0 5.010	2.7 29.096 5.0 6.949 2.0 6.083
1.9 20.614 3.0 4.817 6.0 4.505	1.8 19.177 2.0 4.864 1.0 3.599
1.9 20.677 1.0 4.659 1.0 2.976	2.3 25.327 3.0 5.230 5.0 4.755
3.3 30.016 6.5 6.054 1.0 6.849	2.2 24.612 2.0 5.950 2.0 4.279
2.4 26.341 3.5 7.345 4.0 5.829	2.3 25.720 3.0 6.313 4.0 4.561
2.6 28.731 6.5 6.325 3.0 5.910	2.3 25.439 3.0 6.133 3.0 4.541
2.9 32.362 3.5 7.700 5.5 5.990	2.0 22.150 2.0 5.316 4.0 3.891
2.8 30.358 4.0 6.216 1.0 4.997	3.7 37.267 5.0 9.415 1.0 7.427
1.9 21.215 1.0 4.506 4.0 2.925	1.2 12.531 0.0 2.575 1.0 1.685
2.2 24.587 2.0 6.073 2.0 4.571	2.5 27.076 3.5 6.143 7.0 5.740
3.5 31.998 5.0 7.145 2.0 6.528	2.3 25.942 5.0 5.038 1.0 5.323
2.3 25.444 3.0 5.579 4.0 4.707	1.4 15.957 1.5 2.967 6.0 2.831
1.4 15.464 1.0 3.113 6.0 2.242	2.9 32.161 6.0 7.039 4.0 6.796
2.9 32.236 5.5 7.815 3.0 6.553	1.8 19.106 1.0 5.213 3.0 3.151
1.9 21.070 3.0 5.254 1.0 4.496	2.4 25.949 2.5 6.947 3.0 4.625
1.7 18.485 1.0 3.677 2.0 2.610	3.5 27.855 4.0 7.215 2.0 6.394
1.7 18.324 1.5 3.960 5.0 2.766	1.6 17.604 3.5 3.914 4.0 4.385
1.9 21.446 1.5 5.251 5.0 3.579	2.9 31.812 6.0 7.186 1.0 6.824
2.3 25.058 4.0 5.733 4.0 4.790	2.0 22.277 2.5 5.581 1.0 3.958
2.4 25.939 3.0 6.142 2.0 4.533	2.0 22.123 2.0 4.432 5.0 3.736
2.1 22.395 2.5 5.222 1.0 4.101	1.5 17.351 1.0 3.824 1.0 2.646
2.4 25.784 4.0 5.536 2.0 4.560	2.2 24.788 5.0 5.965 3.0 5.354
2.2 25.152 2.5 6.208 2.0 4.657	2.5 27.203 3.0 6.007 5.0 4.790
1.8 20.037 1.5 4.453 3.0 2.867	2.5 26.661 6.0 6.862 4.0 5.802
2.1 23.951 2.5 6.236 1.0 4.363	1.6 18.154 0.5 3.978 4.0 2.662
2.1 22.069 1.5 4.892 4.0 2.991	2.6 27.924 5.5 6.233 2.0 6.071
2.5 27.687 4.5 6.481 2.0 5.495	1.8 19.754 2.5 4.522 1.0 3.701

Procedures 3

1-sample t-test

```
PROC SORT DATA=e4206.salario OUT=salario;
BY sexo;
PROC TTEST DATA=salario ALPHA=.01;
VAR edad;
BY sexo;
RUN;
```

2-sample t-test

```
PROC TTEST DATA=salario ALPHA=.05 CI=equal;
VAR salario;
CLASS sexo;
RUN;
```

data set tiene estadísticos

```
PROC MEANS DATA=salario NOPRINT;
VAR salario;
BY sexo;
OUTPUT OUT=stat_salario;
PROC TTEST DATA =stat_salario ALPHA=.05 CI=equal;
VAR salario;
CLASS sexo;
RUN;
```

ANOVA

```
LIBNAME e4206 'c:\e4206';
/*cambiar la disposición de los datos en el archivo para que queden de la forma estudiante, # del
examen, puntuación del examen*/
DATA examenes(drop=examen1-examen3 est);
SET e4206.exam;
ARRAY e(3) examen1-examen3;
estud+1;
DO exam=1 to 3;
ex=e(exam);
OUTPUT examenes;
END;
RUN;
PROC ANOVA DATA=examenes;
CLASS estud exam;
MODEL ex=estud exam; RUN;
```

ANOVA – Repeated measures

```
PROC ANOVA DATA=e4206.exam;  
MODEL examen1-examen3=/NOUNI;  
REPEATED prueba 3;  
RUN;
```

Regresión

```
SYMBOL COLOR=red VALUE=circle;RUN;  
DATA e4206.electric;  
INFILE 'c:\temp\electric.dat';  
INPUT house income air appliance n_memb load;  
PROC REG DATA=e4206.electric ;  
full:MODEL load=house income air appliance n_memb/SELECTION=backward SLS=.05  
SPEC NOINT COLLIN;  
PLOT residual.*predicted. ;  
PLOT residual.*npp.;  
RUN;
```

Regresión con GLM

```
DATA e4206.electric;  
INFILE 'c:\temp\electric.dat';  
INPUT house income air appliance n_memb load;  
PROC GLM DATA=e4206.electric ;  
MODEL load=house income air appliance n_memb; RUN;
```

GLM

```
DATA examenenes(drop=examen1-examen3 est);  
SET e4206.exam;  
ARRAY e(3) examen1-examen3;  
estud+1;  
DO exam=1 to 3;  
  ex=e(exam);  
  OUTPUT examenenes;  
END;  
RUN;  
PROC GLM DATA=examenenes;  
CLASS estud exam;  
MODEL ex=estud exam;  
MEANS exam/tukey; RUN;
```