

```

data battery;
input mat temp life @@;
datalines;
1 1 130 1 1 155 1 1 74 1 1 180
1 2 34 1 2 40 1 2 80 1 2 75
1 3 20 1 3 70 1 3 82 1 3 58
2 1 150 2 1 188 2 1 159 2 1 126
2 2 136 2 2 122 2 2 106 2 2 115
2 3 25 2 3 70 2 3 58 2 3 45
3 1 138 3 1 110 3 1 168 3 1 160
3 2 174 3 2 120 3 2 150 3 2 139
3 3 96 3 3 104 3 3 82 3 3 60
;
Run;

proc glm data=battery;
class mat temp;
model life=mat temp mat*temp;
output out=batnew r=res p=ypred;

means mat temp;
means mat/tukey cldiff;
run;

proc plot data=batnew;
plot res*ypred;
plot res*mat;
plot res*temp;
run;

proc univariate data=batnew normal plot;
var res;
run;

data Nbattery;
set battery;
cell=mat||temp;
proc print;
run;

proc glm;
class cell;
model life=cell;
means cell/tukey cldiff;
run;
run;

```