

```
/*Homework 05 Problem 4.13*/
title 'STAT455-HW05';
options pagesize=max linesize=72 nocenter;
data shaq; input made attempt game @@;
datalines;
4 5 1      5 11 2
5 14 3     5 12 4
2 7 5      7 10 6
6 14 7     9 15 8
4 12 9     1 4 10
13 27 11   5 17 12
6 12 13    9 9 14
7 12 15    3 10 16
8 12 17    1 6 18
18 39 19   3 13 20
10 17 21   1 6 22
3 12 23
;
run;
title 'Common Probability - Regression';
proc genmod data=shaq;
model made/attempt = /dist=binomial link=id;
output out=obstats stdreschi=stdresid pred=fv;
run;
proc print data = obstats; run;
title 'Create 23x2 table of counts';
data shaqtable; set shaq;
game = _n_;
miss = attempt - made;
outcome=1; count=made; output;
outcome=0; count=miss; output;
run;
proc freq data=shaqtable;
weight count;
table game*outcome/nocum norow nocol nopercnt;
exact chisq/mc n=10000;
run;
title 'Over-dispersion';
proc genmod data=shaq;
model made/attempt = /dist=binomial link=id scale=p;
output out=obstatsOD stdreschi=stdresid pred=fv;
run;
proc print data = obstatsOD;
run;
```