```sas
/*Tyler Edwards*/
/*10-3-2019*/
/*H.W.2*/

/*2.2*/
data p1;
    input ID CONTACT $ HAPPY @@;
    datalines;
1 LETTER 0.4 1 PHONE 0.3 1 TEXT 0.1
2 LETTER 0.8 2 PHONE 0.4 2 TEXT 0.3
3 LETTER 0.5 3 PHONE 0.4 3 TEXT 0.1
4 LETTER 0.7 4 PHONE 0.6 4 TEXT 0.2
5 LETTER 0.6 5 PHONE 0.3 5 TEXT 0.2
6 LETTER 0.6 6 PHONE 0.5 6 TEXT 0.4
7 LETTER 0.6 7 PHONE 0.4 7 TEXT 0.3
8 LETTER 0.7 8 PHONE 0.6 8 TEXT 0.2
;
run;

PROC SORT data=p1;
BY ID;
RUN;

PROC RANK DATA=p1 OUT=p1Rank;
VAR HAPPY;
BY ID;
RANKS rank;
RUN;

PROC FREQ data=p1Rank;
TABLE ID*CONTACT*rank/ NOPRINT CMH;
RUN;

/*2.3*/
data p2;
input Pond $ Lead @@;
datalines;
A 3 A 4 A 4 A 5 A 7 A 8
B 10 B 11 B 11 B 12 B 15 B 18
C 4 C 5 C 6 C 6 C 9 C 10
;

proc npar1way data=p2 wilcoxon;
class Pond;
var Lead;
exact;
run;

/*3.3*/
data p3;
```

```sas
input Year Points;
datalines;
2000 1938
2001 2019
2002 2461
2003 1557
2004 1819
2005 2832
2006 2430
2007 2323
2008 2201
2009 1970
2010 2078
;

PROC FREQ DATA=p3;
    TABLE Year*Points;
    EXACT SCORR;
RUN;
/* Spearman = 0.2091 */
/* ASE = 0.2633 */

/*3.5*/
data p4;
    input Gender $ Choice $ @@;
datalines;
Boy Studying Boy Studying Boy Studying Boy Studying Boy Studying
Boy Studying Boy Studying Boy Studying Boy Studying Boy Studying
Boy Studying Boy Studying Boy Sports Boy Sports Boy Sports
Boy Sports Boy Sports Boy Sports Boy Sports Boy Sports Boy Sports
Boy Sports Boy Sports Boy Friends Boy Friends Boy Friends Boy Friends
Girl Studying Girl Studying Girl Studying Girl Studying Girl Studying
Girl Studying Girl Studying Girl Studying Girl Sports Girl Sports
Girl Friends Girl Friends Girl Friends Girl Friends Girl Friends
Girl Friends Girl Friends Girl Friends Girl Friends Girl Friends
Girl Friends Girl Friends
;
run;

PROC FREQ DATA=p4;
    TABLE Gender * Choice;
    exact fisher;
RUN;
```