Thomas Pattara
SAS homework 7

Question 1:

```
data passing;
array pass_score{5} _temporary_
(65,70,60,62,68);
array Score{5};
input ID : $3. Score1-Score5;
NumberPassed = 0;
MedianScore = median(of Score1-Score5); MaxScore = max(of Score1-Score5);
MinScore = min(of Score1-Score5);
do Test = 1 to 5;
NumberPassed + (Score{Test} ge pass_score{Test});
end;
drop Test;
datalines;
001   90 88 92 95 90
002   64 64 77 72 71
003   68 69 80 75 70
004   88 77 66 77 67
;
title "Listing of PASSING";
proc print data=passing;
id ID;
run;
```

Listing of PASSING

ID	Score 1	Score 2	Score 3	Score 4	Score 5	NumberPassed	MedianScore	MaxScore	MinScore
001	90	88	92	95	90	5	90	95	88
002	64	64	77	72	71	3	71	77	64
003	68	69	80	75	70	4	70	80	68
004	88	77	66	77	67	4	77	88	66

Question 2:

```
proc sort data=work.import out=sales;
by Region;
run;
title "Sales Figures from the SALES Data Set";
proc print data=sales;
by Region;
id Region;
var Quantity TotalSales;
sumby Region;
run;
```

Region	Quantity	TotalSales
East	100	699
	100	899
	500	19995
	2	20000
East	702	41593

Region	Quantity	TotalSales
North	50	449.5
	3	15597
	1	5129
	5	52.5
North	59	21228

Region	Quantity	TotalSales
South	100	599
	10	299.5

Region	Quantity	TotalSales
	1	9109
	100	1995
South	**211**	**12002.5**
Region	**Quantity**	**TotalSales**
West	50	299.5
	1000	1990
West	**1050**	**2289.5**
	2022	**77113**

Question 3:

```
DATA COMM;
set work.import2;
if (LASTNAME = COMMMEM1) then Match = 'Yes';
else if(LASTNAME = COMMMEM2) then Match = 'Yes';
else if(LASTNAME = COMMMEM3) then Match = 'Yes';
else if(LASTNAME = COMMMEM4) then Match = 'Yes';
else if(LASTNAME = COMMMEM5) then Match = 'Yes';
  else Match = 'No';

proc print data = comm;
run;

proc freq data = comm;
table Match;
title 'number of students who are contained in their own committee';
run;

proc iml;
use comm;
```

```
read all var{LASTNAME COMMMEM1 COMMMEM2 COMMMEM3 COMMMEM4
COMMMEM5} into x;
close;
call tabulate(level,freq,x);
freq = freq - 1;
title'number of times a student is included in a committee';
print (level`)[l='LASTNAME'](freq`)[l='COMMFREQ'] ;
COMMFREQ = freq;
LASTNAME = level;
create temp var {LASTNAME COMMFREQ};
append;
close temp;
quit;

data rem;
set temp;
proc sort data=rem;
by COMMFREQ;
title'five students with the least frequencies';
proc print data = rem(obs=5);
run;
```

Obs	LASTNAME	COMMMEM1	COMMMEM2	COMMMEM3	COMMMEM4	COMMMEM5	Match
1	ANDERSON	LACEY	IVANECKY	SLAVIK	CITTERMAN	SCHROEDER	No
2	PATTARA	BODVIG	HEDMAN	HUSS	PATTARA	SLAVIK	Yes
3	ZHANG	BUTTKE	HINTON	LACEY	PETERSON	WIESELER	No
4	HINTON	HEDMAN	HEIER	PATTARA	SLAVIK	THIRSTEN	No
5	HU	KNEIP	OLSON	PATTARA	SCHROEDER	SLAVIK	No
6	WADE	BODVIG	LACEY	PATTARA	REMMICH	RUST	No
7	MCDONALD	ANDERSON	BUNGE	HAUG	MILLER	WADE	No
8	OLSON	ANDERSON	BOWEN	BUNGE	IVANECKY	SLAVIK	No

Obs	LASTNAME	COMMMEM1	COMMMEM2	COMMMEM3	COMMMEM4	COMMMEM5	Match
9	HEIER	HAUG	OLSON	PETERSON	SAX	SCHROEDER	No
10	PETERSON	BUNGE	BUTTKE	CITTERMAN	HEDMAN	HINTON	No
11	BUNGE	HINTON	JOHANSON	MCDONALD	WIESELER	ZHANG	No
12	JOHANSON	BODVIG	HAUG	HINTON	RUST	WADE	No
13	BODVIG	CITTERMAN	HAUG	HEIER	LACEY	REMMICH	No
14	HUSS	CITTERMAN	PETERSON	THIRSTEN	HEIER	SLAVIK	No
15	WIESELER	MILLER	HAUG	PETERSON	BODVIG	LARSON	No
16	BOWEN	WIESELER	SCHROEDER	BOWEN	HEIER	IVANECKY	Yes
17	THIRSTEN	THIRSTEN	WIESELER	HAUG	BUTTKE	HEIER	Yes
18	HAUG	CITTERMAN	LACEY	BUNGE	MILLER	BOWEN	No
19	HEDMAN	CITTERMAN	LACEY	RUST	SAX	THIRSTEN	No
20	SLAVIK	BODVIG	JOHANSON	MCDONALD	MILLER	SAX	No
21	MILLER	ANDERSON	MCDONALD	PATTARA	SAX	ZHANG	No
22	IVANECKY	HEDMAN	KNEIP	REMMICH	RUST	THIRSTEN	No
23	STOEBNER	JOHANSON	KNEIP	HAUG	LARSON	STOEBNER	Yes

Obs	LASTNAME	COMMMEM1	COMMMEM2	COMMMEM3	COMMMEM4	COMMMEM5	Match
24	LACEY	JOHANSON	DEUTSCH	IVANECKY	BODVIG	BUTTKE	No
25	REMMICH	HUSS	MCDONALD	LARSON	HINTON	BOWEN	No
26	LARSON	SAX	RUST	KNEIP	MCDONALD	HINTON	No
27	SAX	BUNGE	CITTERMAN	HUSS	LACEY	SCHROEDER	No
28	DEUTSCH	ANDERSON	HINTON	MILLER	CITTERMAN	IVANECKY	No

number of students who are contained in their own committee

The FREQ Procedure

Match	Frequency	Percent	Cumulative Frequency	Cumulative Percent
No	24	85.71	24	85.71
Yes	4	14.29	28	100.00

number of times a student is included in a committee

LASTNAME	COMMFREQ
ANDERSON	4
BODVIG	6
BOWEN	4
BUNGE	5
BUTTKE	3
CITTERMAN	7

LASTNAME	COMMFREQ
DEUTSCH	1
HAUG	7
HEDMAN	4
HEIER	5
HINTON	7
HU	0
HUSS	3
IVANECKY	5
JOHANSON	4
KNEIP	3
LACEY	7
LARSON	3
MCDONALD	5
MILLER	5
OLSON	2
PATTARA	5
PETERSON	4
REMMICH	3
RUST	4
SAX	5
SCHROEDER	4

LASTNAME	COMMFREQ
SLAVIK	6
STOEBNER	1
THIRSTEN	5
WADE	2
WIESELER	4
ZHANG	2

five students with the least frequencies

Obs	LASTNAME	COMMFREQ
1	HU	0
2	DEUTSCH	1
3	STOEBNER	1
4	OLSON	2
5	WADE	2