Thomas Pattara
SAS Homework 9

17.2 Using the SAS data set BloodPressure, generate frequencies for the variable Age. Use a user-defined format to group ages into three categories: 40 and younger, 41 to 60, and 61 and older. Use the appropriate options to omit the cumulative statistics and percentages.

```
data prob2;
 set '/home/thomaspattara0/sasuser.v94/bloodpressure.sas7bdat';
proc format;
value agegrp low-40  = '40 and lower'
41-60   = '41 to 60'
61-high = '61 and higher';
run;
 title "Using a Format to Regroup Values";
 proc freq data=prob2;
 tables age / nocum nopercent;
 format age agegrp.;
 run;
```

Using a Format to Regroup Values

The FREQ Procedure

Age	Frequency
40 and lower	3
41 to 60	3
61 and higher	2

17.6 Using the SAS data set College, produce a three-way table of Gender (page) by Scholarship (row) by SchoolSize (column).

```
data prob6;
 set '/home/thomaspattara0/sasuser.v94/college.sas7bdat';
 title "Three-way Tables";
 proc freq data=prob6;
 tables Gender*Scholarship*SchoolSize;
 run;
```

Three-way Tables

The FREQ Procedure

Frequency
Percent
Row Pct
Col Pct

Table 1 of Scholarship by SchoolSize

Controlling for Gender=F

Scholarship	SchoolSize L	SchoolSize M	SchoolSize S	Total
N	9 15.25 18.00 90.00	19 32.20 38.00 82.61	22 37.29 44.00 84.62	50 84.75
Y	1 1.69 11.11 10.00	4 6.78 44.44 17.39	4 6.78 44.44 15.38	9 15.25
Total	10 16.95	23 38.98	26 44.07	59 100.00

Frequency Missing = 1

Frequency
Percent
Row Pct
Col Pct

Table 2 of Scholarship by SchoolSize

Controlling for Gender=M

Scholarship	SchoolSize L	SchoolSize M	SchoolSize S	Total
N	7 18.92 20.59 87.50	17 45.95 50.00 94.44	10 27.03 29.41 90.91	34 91.89

Y	1	1	1	3
	2.70	2.70	2.70	8.11
	33.33	33.33	33.33	
	12.50	5.56	9.09	
Total	8	18	11	37
	21.62	48.65	29.73	100.00
Frequency Missing = 3				

18.4 Produce the following table. Note that the keyword ALL has been renamed Total, Gender is formatted, and ClassRank (a continuous numeric variable) has been formatted into two groups (0–70 and 71 and higher).

```
data prob4;
 set '/home/thomaspattara0/sasuser.v94/college.sas7bdat';
 proc format;
 value $gender 'F' = 'Female'
 'M' = 'Male';
 value rank low-70  = 'Low to 70'
 71-high = '71 and higher';
 run;
 title "Demographics from COLLEGE Data Set";
 proc tabulate data=prob4 format=6.;
 class Gender Scholarship ClassRank;
 tables Scholarship all,
 (ClassRank)*(Gender all) / rts=15;
 keylabel n=' '
 all = 'Total';
 format Gender $gender. ClassRank rank.;
 run;
```

Demographics from COLLEGE Data Set

	ClassRank					
	Low to 70			71 and higher		
	Gender		Total	Gender		Total
	Female	Male		Female	Male	
Scholarship						
N	20	15	35	23	19	42
Y	4	.	4	5	2	7
Total	24	15	39	28	21	49

18.8 Produce the following table. Note that the keyword ROWPCTN has been renamed as Percent and Gender has been formatted. A procedure option was used to remove the horizontal table lines.

```
data prob8;
 set '/home/thomaspattara0/sasuser.v94/college.sas7bdat';
 title "Demonstrating Row Percents";
 proc format;
 value $gender 'F' = 'Female'
 'M' = 'Male';
 run;
 proc tabulate data=prob8 format=7. noseps;
 class Gender Scholarship;
 tables Gender all,
 (Scholarship all)*(rowpctn);
 keylabel rowpctn = 'Percent';
 format Gender $gender.;
 run;
```

Demonstrating Row Percents

	Scholarship		All
	N	Y	
	Percent	Percent	Percent
Gender			
Female	83	17	100
Male	93	8	100
All	87	13	100