Now we are ready to take these statements and options and begin creating reports using the SASHELP.CLASS data set.

Trick 1: Generate a basic Report using the REPORT procedure.

```
proc report data=sashelp.class nowindows;
     columns name sex age height weight;
     define name   / display  'Name'   width=10;
     define sex    / display  'Gender' width=6;
     define age    / display  'Age'    width=4;
     define height / analysis 'Height' format=8.1;
     define weight / analysis 'Weight' format=8.1;
run;
```

Program 1.

Notice the DEFINE statements. The term following the '/' specifies the way the REPORT procedure uses the column. Columns can be defined as:

- GROUP - puts observations into categories
- DISPLAY - displays values for each observation
- ANALYSIS - contributes values to a calculation or statistic
- ORDER - defines the order of the report rows
- ACROSS - creates columns for each of its values
- COMPUTED - its values are created in a COMPUTE block

Now, lets look at the output created from the above program:

The SAS System

Name	Gender	Age	Height	Weight
Alfred	M	14	69.0	112.5
Alice	F	13	56.5	84.0
Barbara	F	13	65.3	98.0
Carol	F	14	62.8	102.5
Henry	M	14	63.5	102.5
James	M	12	57.3	83.0
Jane	F	12	59.8	84.5
Janet	F	15	62.5	112.5
Jeffrey	M	13	62.5	84.0
John	M	12	59.0	99.5
Joyce	F	11	51.3	50.5
Judy	F	14	64.3	90.0

Output 1 – Partial PROC REPORT output.

At first glance, this looks a little like PROC PRINT output without the OBS column. Aesthetically, the output could use some improvement, so let's enhance the report.

Trick 2: Add a Compute Block and a total row at the end of the report.

Sex	Name	Weight
M	Alfred	112.5
F	Alice	84.0
F	Barbara	98.0
F	Carol	102.5
M	Henry	102.5
M	James	83.0
F	Jane	84.5
M	Jeffrey	84.0
M	John	99.5
F	Joyce	50.5
F	Judy	90.0
F	Louise	77.0
M	Robert	[illegible]
M	Thomas	85.0
	Goal	*[illegible]*
	Female Avg	*83.8*
	Male Avg	*99.2*
	Overall Avg	*91.5*

Output 9. ODS.

Notice the fonts of the column headers as well as the summary rows. Also notice other aesthetic considerations Such as the color of the fonts, and background color of each of the cells. We can use ODS to control every single attribute of the report.

Trick 10. Enhance the report with a few ODS features.

With ODS comes some new features in the syntax, including the **STYLE(*area*)=** option, where area = some part of the report. The areas that will be effected in this task are the columns, summary rows, and headers. We are going to put the STYLE(*area*)= option to work on the PROC statement first. Notice the code below only contains the PROC statement. Also notice which attributes are going to be effected.

```
ods rtf file='c:\sugi30.rtf';
proc report data=prep2(where=(age lt 15)) nowindows
     style(column) ={font_face='Arial'}
     style(summary)={font=('Arial,Helvetica, Helv') font_size=12.25pt}
     style(header) ={font_face='Arial' font_size=13.70pt};
```

PROC statement for Task 10.