

# Analyzing and Reporting on Data

TOTAL POINTS 10

1. When you run this program, which title or titles appear in the final PROC PRINT results?

1 point

```
1 title1 'The First Line';  
2 title2 'The Second Line';  
3 proc print data=sales;  
4 run;  
5 title2 'The Next Line';  
6 proc print data=sales;  
7 run;  
8 title 'The Top Line';  
9 proc print data=sales;  
10 run;
```

☐ The Top Line

☐ The Top Line

The Next Line

☐ The Top Line

The Second Line

☐ The Top Line

The First Line

The Next Line

2. Which statement substitutes the value of the macro variable **Year** in the footnote?

%let Year=2018;

- ☐ footnote "&year Sales";
- ☐ footnote "%year Sales";
- ☐ footnote 'year Sales';
- ☐ footnote '&year Sales';

3. Which statement is true based on the given program?

1 point

```
1 data baseball2;  
2     set sashelp.baseball;  
3     BatAvg=CrHits/CrAtBat;  
4     label BatAvg="Batting Average";  
5 run;  
6  
7 proc print data=baseball2;  
8     var Name Team BatAvg;  
9 run;  
10  
11 proc means data=baseball2;  
12     var BatAvg;  
13     class Team;  
14 run;
```

- ☐ The label for **BatAvg** will appear in the PROC MEANS report.
- ☐ The label for **BatAvg** will appear in both reports.
- ☐ The label for **BatAvg** will appear in the PROC PRINT report.
- ☐ The column **BatAvg** will have a permanent label in the **sashelp.baseball** data set.

4. Which statement is true regarding a BY statement in a reporting procedure such as PROC PRINT?

1 point

- ☐ The BY statement must be the first statement after the PROC statement.
- ☐ Only one column can be specified in the BY statement.
- ☐ The BY statement groups the report by the specified columns.
- ☐ The BY statement is responsible for sorting the table.

5. Which statement is false concerning the FREQ procedure?

1 point

- ☐ The PLOTS= option can be placed in the TABLES statement after the forward slash to create bar charts based on counts or percentages.
- ☐ The OUT= option can be placed in the TABLES statement after the forward slash to create a table containing counts and percentages.
- ☐ The NOPROCTITLE option can be placed in the PROC FREQ statement to remove the procedure title **The FREQ Procedure**.
- ☐ The ORDER=FREQ option can be placed in the PROC FREQ statement to display the column values in descending frequency count order.

6. Which PROC FREQ step creates the results shown here?

1 point

Number of Variable Levels	
Variable	Levels
Region	10

Region	Frequency	Percent
Africa	56	14.18
Asia	14	3.54
Canada	37	9.37
Central America/Caribbean	32	8.10
Eastern Europe	31	7.85
Middle East	24	6.08
Pacific	45	11.39
South America	54	13.67
United States	40	10.13
Western Europe	62	15.70



```
1 proc freq data=sashelp.shoes / levels;
2     tables Region nocum;
3 run;
```



```
1 proc freq data=sashelp.shoes nlevels;
2     tables Region / nocum;
3 run;
```



```
1 proc freq data=sashelp.shoes levels;
2     tables Region / nocum;
3 run;
```



```
1 proc freq data=sashelp.shoes;
2     tables Region nocum;
3 run;
```

7. Which report is created from the following PROC FREQ step?

1 point

```
1 proc freq data=sashelp.cars;
2     where Cylinders in (4,6) and Type in ('Sedan','SUV');
3     tables Type*Cylinders / nocol norow crosslist;
4 run;
```



Report 1

Frequency Percent	Table of Type by Cylinders			
	Type	Cylinders		
		4	6	Total
	SUV	7 2.77	30 11.86	37 14.62

☐ Report 2

Type	Cylinders	Frequency	Percent	Cumulative Frequency	Cumulative Percent
SUV	4	7	2.77	7	2.77
SUV	6	30	11.86	37	14.62

☐ Report 3

Table of Type by Cylinders			
Type	Cylinders	Frequency	Percent
SUV	4	7	2.77
	6	30	11.86
	Total	37	14.62

☐ Report 4

Table of Type by Cylinders					
Type	Cylinders	Frequency	Percent	Row Percent	Column Percent
SUV	4	7	2.77	18.92	6.80
	6	30	11.86	81.08	20.00
	Total	37	14.62	110.00	

8. Which statement is true concerning the MEANS procedure?

1 point

- ☐ The `_COUNT_` and `_FREQ_` columns are automatically included in the output summary table that is produced by the `OUT=` option of the `OUTPUT` statement.
- ☐ The `WAYS` statement specifies the number of ways to make unique combinations of class columns.
- ☐ The `VAR` statement is required and identifies the analysis columns.
- ☐ The `MAXDEC=` option is used in the `VAR` statement to specify the number of decimal places for the statistics.

9. An input table must be pre-sorted by the columns listed in the `CLASS` statement of a `PROC MEANS` step.

1 point

```
1 proc means data=sashelp.heart;  
2     var Cholesterol;  
3     class Weight_Status Sex;  
4 run;
```

- ☐ True
- ☐ False

10. Which statement from `PROC MEANS` contains valid syntax for creating a summary output table?

1 point

- ☐ `out work.summary mean(Weight)=TotW;`
- ☐ `output out=work.summary mean(Weight)=TotW;`
- ☐ `out=work.summary mean;`
- ☐ `output out work.summary Weight=TotW;`

