

Unit 1-4 Exercises

1. Examining the Data Portion

- a. Retrieve the starter program **p104e01**.
- b. After the PROC CONTENTS step, add a PROC PRINT step to display all observations, all variables, and the Obs column for the data set named **Work.donations**.
- c. Submit the program to create the following PROC PRINT report:

Partial PROC PRINT Output (First 10 of 124 Observations)

Obs	Employee_ ID	Qtr1	Qtr2	Qtr3	Qtr4	Total
1	120265	.	.	.	25	25
2	120267	15	15	15	15	60
3	120269	20	20	20	20	80
4	120270	20	10	5	.	35
5	120271	20	20	20	20	80
6	120272	10	10	10	10	40
7	120275	15	15	15	15	60
8	120660	25	25	25	25	100
9	120662	10	.	5	5	20
10	120663	.	.	5	.	5

- d. In the PROC PRINT step, add a VAR statement and the NOOBS option to display only the **Employee_ID** and **Total** variables.
- e. Submit the program to create the following PROC PRINT report:

Partial PROC PRINT Output (First 10 of 124 Observations)

Employee_ ID	Total
120265	25
120267	60
120269	80
120270	35
120271	80
120272	40
120275	60
120660	100
120662	20
120663	5

2. Examining the Descriptor and Data Portions

- Retrieve the starter program **p104e02**.
- After the DATA step, add a PROC CONTENTS step to display the descriptor portion of **Work.newpacks**.
- Submit the program and answer the following questions:
How many observations are in the data set? _____
How many variables are in the data set? _____
What is the length (byte-size) of the variable **Product_Name**? _____
- After the PROC CONTENTS step, add a PROC PRINT step with appropriate statements and options to display part of the data portion of **Work.newpacks**.
- Submit the program to create the following PROC PRINT report:

Product_Name	Supplier_Name
Black/Black	Top Sports
X-Large Bottlegreen/Black	Top Sports
Commanche Women's 6000 Q Backpack. Bark	Top Sports
Expedition Camp Duffle Medium Backpack	Miller Trading Inc
Feelgood 55-75 Litre Black Women's Backpack	Toto Outdoor Gear
Jaguar 50-75 Liter Blue Women's Backpack	Toto Outdoor Gear
Medium Black/Bark Backpack	Top Sports
Medium Gold Black/Gold Backpack	Top Sports
Medium Olive Olive/Black Backpack	Top Sports
Trekker 65 Royal Men's Backpack	Toto Outdoor Gear
Victor Grey/Olive Women's Backpack	Top Sports
Deer Backpack	Luna sastreria S.A.
Deer Waist Bag	Luna sastreria S.A.
Hammock Sports Bag	Luna sastreria S.A.
Sioux Men's Backpack 26 Litre.	Miller Trading Inc

3. Working with Times and Datetimes

- Retrieve and submit the starter program **p104e03**.
- Notice the values of **CurrentTime** and **CurrentDateTime** in the PROC PRINT output.
- Use the Help facility to find documentation on how times and datetimes are stored in SAS.
Go to the CONTENTS tab in the SAS Help and Documentation and select **SAS Products** ⇒ **Base SAS** ⇒ **SAS 9.3 Language Reference: Concepts** ⇒ **SAS System Concepts** ⇒ **Dates, Times, and Intervals** ⇒ **About SAS Date, Time, and Datetime Values**.
- Complete the following sentences:

A SAS time value is a value representing the number of _____
_____.

A SAS datetime value is a value representing the number of _____
_____.

4. Accessing a SAS Data Library

- a. Write and submit the appropriate LIBNAME statement to provide access to the **orion** libref.

Fill in the blank with the location of your SAS data library.

libname orion ' _____ ' ;

Possible location of your SAS data library:

Windows

s:\workshop

- b. Check the log to confirm that the SAS data library was assigned.

NOTE: Libref ORION was successfully assigned as follows:

- c. Add a PROC CONTENTS step to list all the SAS data sets in the **orion** library. Do not display the descriptor portions of the individual data sets.
- d. Add another PROC CONTENTS step to display the descriptor portion of the data set **orion.sales**.
- e. Use the SAS Explorer window to view the contents of the **orion** library.

5. Reviewing Concepts

- a. SAS statements usually begin with a(n) _____.
- b. Every SAS statement ends with a _____.
- c. The descriptor portion of a SAS data set can be viewed using the _____ procedure.
- d. Character variable values can be up to _____ characters long and use _____ byte(s) of storage per character.
- e. By default, numeric variables are stored in _____ bytes of storage.
- f. The internally stored SAS date value for January 3, 1960, is _____.
- g. A SAS variable name has _____ to _____ characters and begins with a _____ or an _____.
- h. A missing character value is displayed as a _____.
- i. A missing numeric value is displayed as a _____.
- j. When a SAS session starts, SAS automatically creates the temporary library called _____.
- k. A libref name must be _____ characters or less.
- l. What are the two kinds of steps? _____
- m. What are the three primary windows in the SAS windowing environment? _____
- n. What are the two portions of every SAS data set? _____
- o. What are the two types of variables? _____
- p. True or False: If a SAS program produces output, then the program ran successfully and there is no need to check the SAS log.

- q. True or False: There are two methods for commenting in a SAS program.
- r. True or False: Omitting a semicolon never causes errors.
- s. True or False: A library reference name (libref) references a particular data set.
- t. True or False: If a data set is referenced with a one level name, **Work** is the implied libref.
- u. True or False: The `_ALL_` keyword is used with the PRINT procedure.

6. Investigating the LIBNAME Statement

- a. Use the Help facility to find documentation about the LIBNAME statement.

Go to the CONTENTS tab in the SAS Help and Documentation and select
SAS Products ⇒ **Base SAS** ⇒ **SAS 9.3 Statements: Reference** ⇒
Dictionary of SAS Statements ⇒ **LIBNAME Statement**.

- b. Answer the following questions:

What argument disassociates one or more currently assigned librefs? _____

What system option provides you the convenience of specifying only a one-level name for permanent SAS files? _____

- c. Write and submit a LIBNAME statement that shows the attributes of all currently assigned SAS libraries in the SAS log. _____