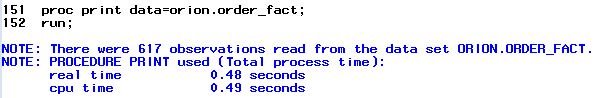
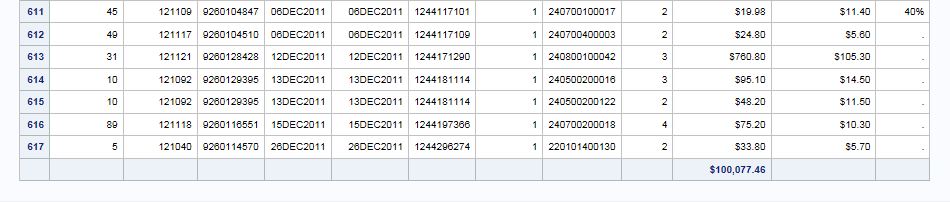
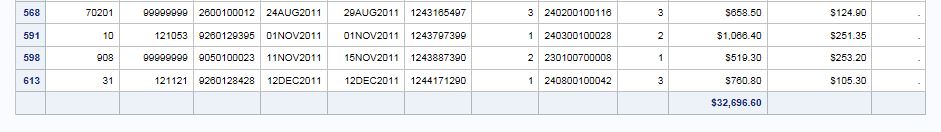
**Chapter 4 Exercises**

1 a) 

b)



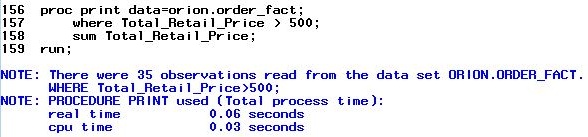
c) 

Note that the numbers are not sequential. The original observation numbers are displayed.

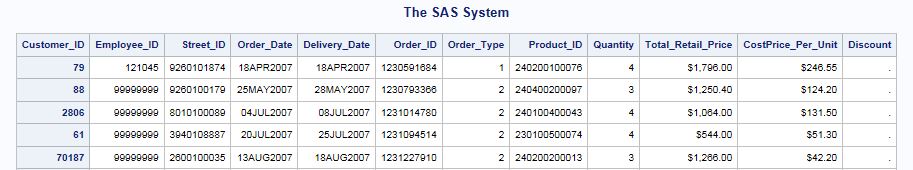
The sum of **Total\_Retail\_Price** changed to reflect only the subset

d) To verify thenumber of observations in the results with the Obs column suppressed,

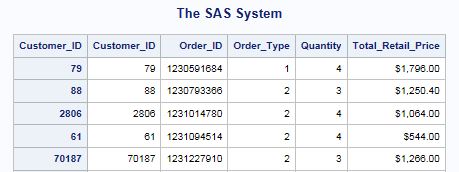
simply check the log.



1 e) When the ID statement is added, Customer\_ID becomes the leftmost column and is displayed on each line of the observation.



f) When the VAR statement is added there are two Customer\_ID columns. The first column is the ID field, and the second one is included because Customer\_ID is listed in the VAR statement.



g)

**proc** **print** data=orion.order\_fact noobs;

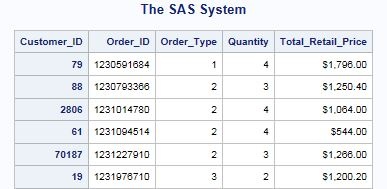
where Total\_Retail\_Price > **500**;

id Customer\_ID;

var Order\_ID Order\_Type Quantity Total\_Retail\_Price;

sum Total\_Retail\_Price;

**run**;



2 a)

**proc** **print** data=orion.customer\_dim;

**run**;

b)

**proc** **print** data=orion.customer\_dim noobs;

where Customer\_Age between **30** and **40**;

**run**;

c)

**proc** **print** data=orion.customer\_dim noobs;

where Customer\_Age between **30** and **40**;

id Customer\_ID;

**run**;

d)

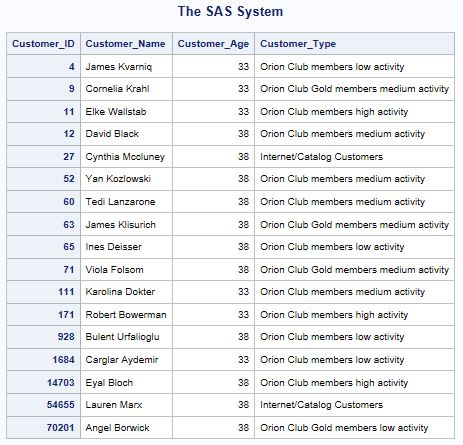
**proc** **print** data=orion.customer\_dim noobs;

where Customer\_Age between **30** and **40**;

id Customer\_ID;

var Customer\_Name Customer\_Age Customer\_Type;

**run**;



5 a) b)

**proc** **sort** data=orion.employee\_payroll out=work.sort\_salary;

by salary;

**run**;

**proc** **print** data=work.sort\_salary;

**run**;





6 a) b)

**proc** **sort** data=orion.employee\_payroll out=work.sort\_salary2;

by Employee\_Gender descending Salary;

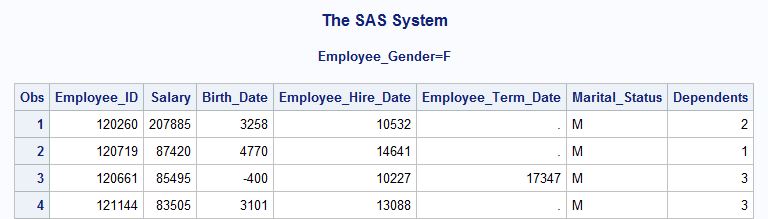
**run**;

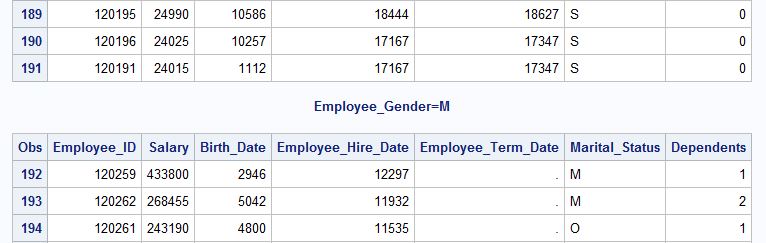
**proc** **print** data=work.sort\_salary2;

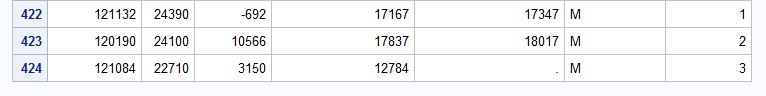
by Employee\_Gender;

**run**;

**quit**;







7 a)

**proc** **sort** data=orion.employee\_payroll out=work.sort\_sal;

by Employee\_Gender descending Salary;

**run**;

b)

**proc** **print** data=work.sort\_sal noobs;

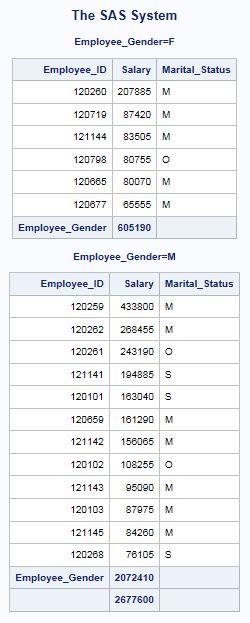
by Employee\_Gender;

sum Salary;

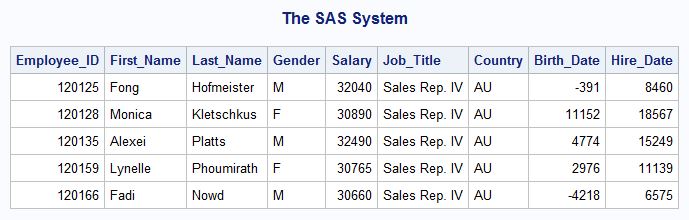
where Employee\_Term\_Date is missing and Salary > **65000**;

var Employee\_ID Salary Marital\_Status;

**run**;



9 a)



9 b) c) d) e)

title1 'Australian Sales Employees';

title2 'Senior Sales Representatives';

footnote1 'Job\_Title: Sales Rep. IV';

**proc** **print** data=orion.sales noobs;

where Country='AU' and Job\_Title contains 'Rep. IV';

var Employee\_ID First\_Name Last\_Name Gender Salary;

**run**;

title;

footnote;



10 a)