\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Exercise 1 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

data \_cars;

set sashelp.cars;

where upcase(type)="WAGON";

RUN;

proc sort data=\_cars;

by make model;

RUN;

%set\_titles\_footnotes(

tit1 = 'Listing of all Wagon cars by region and manufacturer')

%LET MostoCalcPercWidth=N;

%insertOption(namevar=msrp, align= l, width=25mm, keep=n);

%insertOption(namevar=invoice, align= l, width=25mm, keep=n);

%insertOption(namevar=enginesize, align= c, width=25mm, keep=n);

%insertOption(namevar=cylinders, align= c, width=25mm, keep=n);

%insertOption(namevar=horsepower, align= c, width=25mm, keep=n);

%datalist(

data = \_cars

, page = origin

, by = make model

, var = msrp invoice enginesize cylinders horsepower

, freeline = make

, optimal = no

, maxlen = 35

, hsplit = '$'

, bylen = 35

, hb\_align = left

, hv\_align = left

);

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Exercise 2 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

data \_cars;

set sashelp.cars;

where upcase(origin)="ASIA";

RUN;

%desc\_tab(

data = \_cars

, var = horsepower weight length wheelbase

, stat = MIN MEAN MAX

, by = type

, class =

, outdat = \_cars2

, label = YES

)

proc sort data=\_cars2 out=\_cars2\_sort;

by \_VLABUN\_ \_nr\_ type ;

RUN;

proc transpose data=\_cars2\_sort out=\_cars3;

by \_VLABUN\_ \_nr\_;

id type;

var count1 count2 count3;

RUN;

proc sort data=\_cars3;

by \_nr\_ \_VLABUN\_;

label Hybrid = "$Hybrid$"

SUV = "$SUV$"

Sedan = "$Sedan$"

Sports = "$Sports$"

Truck = "$Truck$"

Wagon = "$Wagon$"

\_label\_ = " ";

RUN;

%set\_titles\_footnotes(tit1 = 'Descriptive statistics for physical characteristics of Asian cars')

%LET MostoCalcPercWidth=N;

%insertOption(namevar=Hybrid, align= l, width=23mm, keep=n);

%insertOption(namevar=SUV, align= l, width=23mm, keep=n);

%insertOption(namevar=Sedan, align= l, width=23mm, keep=n);

%insertOption(namevar=Sports, align= l, width=23mm, keep=n);

%insertOption(namevar=Truck, align= l, width=23mm, keep=n);

%insertOption(namevar=Wagon, align= l, width=23mm, keep=n);

%datalist(

data = \_cars3

, by = \_nr\_ \_VLABUN\_

, var = \_LABEL\_ Hybrid SUV Sedan Sports Truck Wagon

, order = \_nr\_

, freeline = \_VLABUN\_

, optimal = no

, maxlen = 35

, hsplit = '$'

, label = NO

, bylen = 30

, hb\_align = left

, hv\_align = left

);

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Exercise 3 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

data \_cars;

set sashelp.cars;

RUN;

%freq\_tab(

data = \_cars

, var = type drivetrain

, class = origin

, outdat = \_cars2

)

%set\_titles\_footnotes(

tit1 = 'Distribution of car design types by region')

%LET MostoCalcPercWidth=N;

%datalist(

data = \_cars2

, by = \_nr\_ \_ord\_ \_varl\_

, var = \_cptog2 \_cptog3 \_cptog4 \_cptog1

, order = \_nr\_ \_ord\_

, freeline = \_varl\_

, optimal = no

, maxlen = 35

, hsplit = '$'

, label = NO

, bylen = 30

, hb\_align = left

, hv\_align = left

);

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Exercise 4 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

data \_cars;

set sashelp.cars;

where msrp < 12000;

\_type = type;

RUN;

data cars;

set sashelp.cars;

\_type = type;

RUN;

%incidence\_print(

data = \_cars

, data\_n = cars

, subject = model msrp

, var = origin make

, class = \_type

, triggercond = make ne " "

, evlabel = Manufacturer

, anytxt = Any car under $12k

, outdat = \_cars2

)

%set\_titles\_footnotes(

tit1 = 'Availability of cars under $12,000 by region and manufacturer')

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Exercise 5 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

proc format;

value diff

1="Less than $300"

2="$300 up to $1000"

3="$1000 up to $2000"

4="$2000 up to $3000"

5="$3000 and above";

RUN;

data \_cars;

set sashelp.cars;

format diff diff.;

\_diff=msrp-invoice;

if \_diff lt 300 then diff=1;

else if 300 le \_diff lt 1000 then diff=2;

else if 1000 le \_diff lt 2000 then diff=3;

else if 2000 le \_diff lt 3000 then diff=4;

else if \_diff ge 3000 then diff=5;

RUN;

%freq\_tab(

data = \_cars

, data\_n = sashelp.cars

, var = diff

, subject = model make msrp

, by =

, total = NO

, class = origin

, basepct = N

, outdat = \_cars2

, print\_empty = NO

)

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Exercise 6 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

proc sort data=sashelp.cars out=\_cars;

by origin type descending msrp;

label type = "$TYPE$"

make = "$MAKE$"

model = "$MODEL$"

msrp = "$MSRP$"

invoice = "$INVOICE$"

cylinders = "$CYLINDERS$"

horsepower = "$HORSEPOWER$"

;

RUN;

data \_cars2;

set \_cars;

by origin type descending msrp;

if first.type;

RUN;

%macro dat (region=);

%LET MostoCalcPercWidth=N;

%set\_titles\_footnotes(

tit1 = The most expensive cars manufactured in &region. by type)

%datalist(

data = \_cars2(where= (origin="&region."))

, page =

, var = type make model msrp invoice cylinders horsepower

, optimal = no

, maxlen = 35

, hsplit = '$'

, label = NO

, bylen = 30

, hb\_align = left

, hv\_align = left

);

%MEND dat;

%dat(region=%str(Asia))

%dat(region=%str(Europe))

%dat(region=%str(USA))

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Exercise 7 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

proc sort data=sashelp.cars out=\_cars;

by origin make descending msrp;

label type = "$TYPE$"

make = "$MAKE$"

model = "$MODEL$"

msrp = "$MSRP$"

invoice = "$INVOICE$"

cylinders = "$CYLINDERS$"

horsepower = "$HORSEPOWER$"

DriveTrain = "$DRIVE TRAIN$"

;

RUN;

%LET MostoCalcPercWidth=N;

%set\_titles\_footnotes(

tit1 = Listing of all cars)

%datalist(

data = \_cars

, page = origin

, by = make

, var = model type DriveTrain MSRP Invoice EngineSize Cylinders Horsepower MPG\_City MPG\_Highway Weight Wheelbase Length

, freeline = make

, optimal = no

, maxlen = 35

, hsplit = '$'

, label = NO

, bylen = 30

, hb\_align = left

, hv\_align = left

);