```
*SAS PIE CHARTS;

/*
In SAS the pie chart is created using PROC TEMPLATE
which takes parameters to control percentage, labels, color, title etc.

Syntax:
    PROC TEMPLATE;
       DEFINE STATGRAPH pie;
          BEGINGRAPH;
             LAYOUT REGION;
                PIECHART CATEGORY = variable /
                DATALABELLOCATION = OUTSIDE
                CATEGORYDIRECTION = CLOCKWISE
                START = 180 NAME = 'pie';
                DISCRETELEGEND 'pie' /
                TITLE = ' ';
             ENDLAYOUT;
          ENDGRAPH;
       END;
    RUN;
*/

*Simple Pie Chart;
```

```
PROC SQL;
create table CARS1 as
SELECT make, model, type, invoice, horsepower, length, weight
 FROM
SASHELP.CARS
WHERE make in ('Audi','BMW')
;
RUN;
```

```
PROC TEMPLATE;
   DEFINE STATGRAPH pie;
      BEGINGRAPH;
         LAYOUT REGION;
            PIECHART CATEGORY = type /
            DATALABELLOCATION = OUTSIDE
            CATEGORYDIRECTION = CLOCKWISE
            START = 180 NAME = 'pie';
            DISCRETELEGEND 'pie' /
            TITLE = 'Car Types';
         ENDLAYOUT;
      ENDGRAPH;
   END;
RUN;
```

```
PROC SGRENDER DATA = cars1
            TEMPLATE = pie;
RUN;
```

```
*Pie Chart with Data Labels;
/*
In this pie chart we represent both the fractional value as well as the
percentage value for each slice. We also change the location of the label to be inside the chart. The style of
 It uses one of the inbuilt styles, available in the SAS environment.
*/
```

```
PROC TEMPLATE;
   DEFINE STATGRAPH pie;
      BEGINGRAPH;
         LAYOUT REGION;
            PIECHART CATEGORY = type /
            DATALABELLOCATION = INSIDE
            DATALABELCONTENT = ALL
            CATEGORYDIRECTION = CLOCKWISE
            DATASKIN = SHEEN
            START = 180 NAME = 'pie';
            DISCRETELEGEND 'pie' /
            TITLE = 'Car Types';
         ENDLAYOUT;
      ENDGRAPH;
   END;
RUN;
```

```
PROC SGRENDER DATA = cars1
            TEMPLATE = pie;
RUN;

*Grouped Pie Chart;
/*
In this pie chart the value of the variable presented in the graph is grouped
with respect to another variable of the same data set. Each group becomes
one circle and the chart has as many concentric circles as the
```

```
number of groups available.
*/

PROC TEMPLATE;
   DEFINE STATGRAPH pie;
      BEGINGRAPH;
         LAYOUT REGION;
            PIECHART CATEGORY = type / Group = make
            DATALABELLOCATION = INSIDE
            DATALABELCONTENT = ALL
            CATEGORYDIRECTION = CLOCKWISE
            DATASKIN = SHEEN
            START = 180 NAME = 'pie';
            DISCRETELEGEND 'pie' /
            TITLE = 'Car Types';
         ENDLAYOUT;
      ENDGRAPH;
   END;
RUN;

PROC SGRENDER DATA = cars1
            TEMPLATE = pie;
RUN;
```