

Q1. Using the HEART data in SASHELP directory, for the subset of data with condition WHERE STATUS='Dead' and Sex='Male', answer the following questions. Display contents of the SASHELP.HEART file first and check the variables.

a) Produce a vertical bar chart for DEATHCAUSE variable. How many categories are there in the bar chart and what is count of cancer deaths? Save the chart to an HTML document file. Add an appropriate title.

b) Create BMI variable by the formula $BMI = \text{round}((\text{weight} * 703) / \text{height}^2)$ in a new SAS dataset HEARTBMI. Make a pie chart for DEATHCAUSE with an "exploded" view of "Cancer" and with options SUMVAR=BMI and TYPE=MEAN. Send the pie chart as an ActiveX control and output to an HTML document. Use the ODS style **analysis**.

Q2. Using HEARTBMI data, plot WEIGHT*BMI with a linear regression line for observations whose cause of death is Cancer and gender is Female.

- Use ODS to save the graph to a PDF format document.
- Use the ODS style **journal**.
- Plot **BMI** on the vertical axis and **WEIGHT** along the horizontal axis.
- Adjust the scale on the vertical axis to start at 10 and end at 60 with a tick mark every 10 units.
- Display the title 'Relationship between Weight and BMI' in blue.
- Display the points as blue stars.
- Use the NEEDLE interpolation technique to connect the points to the horizontal axis.