Create a graph of Sales over this time period (Quarter 1 of 1986 through Quarter 1 of 2001)

What do you see happening to Coca Cola sales over this time period?

Run a simple linear regression of Sales on Time Period (recode the time period variable to be period 1-61).

Write the regression equation

Explain what the coefficient on Time tells you

Use this regression output to make a sales forecast for the time period below, if you assume that seasonality and time trends are additive.

Forecasted Sales for Quarter 3 of 2002 =

Use this regression output to make a sale forecast for the time period below, if you assume that seasonality and time trends are multiplicative.

Forecasted Sales for Quarter 3 of 2002 =

Run a multiple linear regression of Sales on Time Period and Season (where season is capture in dummy variables for each quarter). Include variables for quarters 1, 2 and 3 in your regression (so quarter 4 is your reference group).

Write the regression equation

Explain what the coefficients tell you.

The coefficient on time tells me that

The coefficient on Quarter 1 tells me that

The coefficient on Quarter 2 tells me that

The coefficient on Quarter 3 tells me that

Use this regression output to make a sales forecast for the time period below.

Forecasted Sales for Quarter 3 of 2002 =

Now run a multiple linear regression of Sales on Time Period and Season (where season is capture in dummy variables for each quarter). Include variables for quarters 1, 2 and 4 in your regression (so quarter 3 is your reference group).

Use this regression output to make a sales forecast for the time period below.

Forecasted Sales for Quarter 3 of 2002 =