Microsoft Excel Project Directions

Refer to the "Cruise Ships" Microsoft Excel file on Blackboard.

To submit: Save your Excel file with your scatter diagram and regression outputs. You may also type up the answers to the other parts of the problems in the same Excel file, or type them up in a separate document file. Submit your file(s) using the Microsoft Excel Project Dropbox on Blackboard.

You have started a new job working in the marketing department of a cruise ship company. Your company is very interested in the results of the Conde Nast Traveler's annual Readers' Choice Survey. The "Cruise Ships" Microsoft Excel file contains scores for several cruise ships. Each score represents the percentage of respondents who rated a ship as excellent or very good on several criteria, including Itineraries/Schedule, Shore Excursions, and Food/Dining. An Overall Score was also reported and used to rank the ships.

> **Part 1.**   Your boss strongly believes that a cruise ship's Itineraries/Schedule score is the main driver of customer satisfaction and has the most influence on the Overall Score a cruise ship gets.
> a.   Create a scatter diagram (using Microsoft Excel) with Itineraries/Schedule as the independent (x) variable and Overall Score as the dependent (y) variable. Make sure to include a trendline.
>
> b.   Develop an estimated regression equation using the regression tool in Microsoft Excel.
>
> c.   Based on your equation, what is the estimate of a cruise ship's Overall Score when their Itineraries/Schedule score is 89?
>
> d.   State the coefficient of determination (taken from your Excel regression output). What does this number mean?
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> **Part 2.** After looking at the regression results you are not very confident in your boss's belief. You decide to re-do the regression analysis using Itineraries/Schedule, Score Excursions, *and* Food/Dining scores as independent variables.
> a.   Develop an estimated regression equation using the regression tool in Microsoft Excel with Itineraries/Schedule, Score Excursions, and Food/Dining as the independent variables and Overall Score as the dependent variable.
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> b.   Based on your equation, what is the estimate of a cruise ship's Overall Score when their Itineraries/Schedule score is 89, Score Excursions score is 93, and Food/Dining score is 95?
>
> c.   State the coefficient of determination (taken from your Excel regression output). What does this number mean?
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> d.   Which formula do you think is more accurate (the simple regression from Part 1 or the multiple regression from Part 2)? Briefly explain why.