

MgtOp 470—Business Modeling with Spreadsheets
Washington State University
Spring 2020
Problem Set 4
Due: April 2, 2020, by midnight

Please save all six questions in six separate files.

Please e-mail your completed files to gihan.mgtop470@gmail.com. This assignment may be completed in a group of up to four people. Please state in the email message the names of all persons turning in this assignment. Please put “MgtOp 470 Homework 4” followed by the name of the person who sent the email in the Subject of the email.

1. (10 points)
Download the “Fast Feet Shoes” spreadsheet from the course website. Using the “Scenario Manager,” create three scenarios *of your own* that each vary the three parameters (unit price, fixed cost, and variable cost) in some way. Present the results in a Scenario Summary sheet.
2. (10 points)
Download the “Antonio’s Italian Restaurant” spreadsheet from the course website.
 - a. Create a Data Table that shows what happens to the Location 3 Weighted Factor Score as the Factor Weight for “Proximity to market” varies from 10 to 40, incrementing by 2 at a time.
 - b. Create a second Data Table that indicates the Best Location (from cell C21) as the Factor Weight for “Proximity to market” varies from 10 to 40, incrementing by 2 at a time. *You should see the winning location change at some point.*
3. (5 points)
Take a clean (different) version of “Antonio’s Italian Restaurant,” and rename it “Antonio’s Restaurant Modified.”

Add an entry in Cell 22 that identifies the “Worst Location” by using a *single* formula.

For the next three problems, download the Beta.xlsx file (Chapter 15) from the course website.

4. (5 points)
Sort the “Beta” file by education, from most to least. Have the first tiebreaker be Beta experience (highest to lowest), and have the second tiebreaker be annual salary (lowest to highest).
5. (10 points) Place some data filters on the “Beta” file. Specifically, show only those records of employees earning no more than \$60,000, having an education level of exactly 4 years, are between 20 and 39 years old (inclusive), and are female. Then show only those with “below average” prior experience. Copy-paste the values from your remaining data set to another sheet so that you can calculate the average salary of this group using a simple “AVERAGE” function.
6. (10 points)
Create two pivot tables for the “Beta” file.
 - a. Show the average age, grouped by gender, and subtotaled by education. Exclude any employees with less than 5 years of prior experience.
 - b. Show the number of employees, grouped by salary (in five groups of \$20,000, starting at \$10,001), and subtotaled by age. Group the ages from 20-64 years old in buckets spanning 5 years each. Place your salary groups down the rows and your age groups across the columns.