

Math 263-007 Excel Assignment # 3
Due 2/19/15 in class or to my office before 5:30 PM.

Instructions For this assignment, you will download the data **263HW3Dat.xlsx** from the course website. Using this data set, follow the instructions below to answer the questions. You do not need to submit your excel spreadsheet or any output from it, so you can either hand-write or type your answers in a word processor and print them out.

In October 2009, the results of a study on the nutrition and marketing of childrens cereal was presented in Washington DC. The data used the study, 'Cereal f.a.c.t.s. Food Advertising to Children and Teens Score,' is in the data file. The main data is given in the tab labeled 'marketing'. The other tabs ('Filter Command' and 'CountIf Command') have examples of two Excel commands that you might want to use: the *filter* command and the *CountIf* command. You can either use these commands (look at the tabs to see examples, or check out YouTube), or you can answer the questions counting by hand.

1. How many cereals are listed in the file?
2. How many cereals are made by General Mills? Kellogg? Post?
3. How many cereals are heavily advertised in one of the three categories listed?
4. How many cereals have a nutrition score of 50 or less? Of 40 or less?
5. If a cereal is selected at random from this list, what is the probability that:
 - (a) The cereal has a nutritional score greater than 62?
 - (b) The cereal is heavily marketed to children in at least one of the three categories?
 - (c) The cereal is heavily marketed to children in at least one of the three categories *given that* it has a nutrition score of 50 or less?
 - (d) The cereal is heavily marketed to children in at least one of the three categories *given that* it has a nutrition score of 40 or less?
6. In one non-technical sentence, use your answers to 5(b),(c), and (d) to describe cereal marketing.

7. Find the probability that a randomly selected cereal is
- (a) Heavily advertised in at least one of the three categories *given that* it is made by Kellogg.
 - (b) It is made by Kellogg *given that* it is heavily advertised in at least one of the three categories.
8. Do you expect the answers to parts 7(a) and 7(b) to be the same? Explain in one non-technical sentence why you would or would not expect them to be the same.