

Math 1030 Summer 2012 – Commentaries

Students choose three (3) of the topics below to write a commentary and to turn in the class following the test for that unit. Students find an example of the topic in the news and explain how it is an example of the quantitative reasoning the class has covered. These commentaries should be between one and two pages, plus a copy of the news article.

Chapter 1 – Logical Fallacy

Find at least one fallacy in a statement which purports to make a logical argument and explain the fallacy. Many arguments and “logical statements” contain numerous fallacies and you could go on and on, but limit this report to no more than three different fallacies – no matter how much fun it is to find the fallacies.

Chapter 3 – Simpson’s Paradox

Find an article that should incorporate Simpson’s paradox in order to be a complete report. Explain how the variables could be examined more closely to obtain a different picture than the articles gives. An example of an older article that does incorporate Simpson’s paradox is

http://rwdacad01.slcc.edu/academics/dept/math/dnelson/How_well_are_Utah_students_doing.pdf.

Chapter 5 – Correlation vs. Causation

Find an article which compares two quantitative variables and makes a conclusion about how one of the variables influences the other. Comment on the legitimacy of the article’s conclusion: (1) Is the correlation strong or weak, or superficial? (2) Is there enough data to support the conclusion? (3) Is there reason to think there is causality? Explain.

Chapter 8 – Modeling Change

Find an article reports on how a quantitative variable is changing linearly, exponentially, logarithmically, or some other way. Explain what kind of change the article is claiming, and if the claim is reasonable for the time involved. Comment on what should be expected as time continues over a longer period than shown in the article, and how it might occur if the conditions in the article remain the same for a long period of time.