

1. Read the setup to problem 10.40 (p. 526).

(a) What are the experimental units in this study? What is the response variable? What is the independent variable? What are the levels of this factor? Is this an observational or a designed study? Explain.

(b) What assumptions must be met in order to use a 1-way ANOVA for this study?

(c) Download the DRINKS data set from the course webpage and use Minitab to perform a 1-way ANOVA. Show all five steps and be specific in your conclusion. Include, and interpret, side-by-side box plots of the sample data. Which means would you guess are different? Explain.

2. Read the setup to problem 10.41 (p. 526).

(a) What are the experimental units in this study? What is the response variable? What is the independent variable? What are the levels of this factor? Is this an observational or a designed study? Explain.

(b) What assumptions must be met in order to use a 1-way ANOVA for this study?

(c) Download the COUGH data set from the course webpage and use Minitab to perform a 1-way ANOVA. Show all five steps and be specific in your conclusion. Include, and interpret, side-by-side box plots of the sample data. Which means would you guess are different? Explain.