

ACTIVITY 2

PART C – Thursday, February 14

Due: Thursday, February 21

A hard copy of Activity #2 is due on Thursday, February 21 (Week 5).

1-4) Calculate the **range** for the data that you see on the screen. Show your work.

5-8) Identify the appropriate **graph** for the data that you see on the screen. Show your work.

Work with a partner. You have been tasked to figure out why midterm scores for this class have been so low. Essentially, this is our research question: What factors affect midterm scores in Dr. Guerrero's class? Using the scientific method, come up with one hypothesis that explains the midterm score in this particular class. Using the data spreadsheet given to you on *Thursday, February 7*, develop a hypothesis using the variables on the spreadsheet.

- 9) Who is your partner?
- 10) What is your hypothesis?
- 11) What is the null hypothesis?
- 12) Determine if your partner's hypothesis is **directional** or **non-directional**?
- 13) What is the **independent variable**?
- 14) What is the **dependent variable**?
- 15) What is a possible **causal mechanism** for this hypothesis? *Explain your logic.*

Use that hypothesis to answer the following two questions.

- (16) For your independent variable:
 - (a) What is the **level of measurement** for this variable?
 - (b) Report the value(s) for the most appropriate measure of **central tendency**.
 - (c) Report the value(s) for **variability**.
 - (d) Draw the most appropriate graph for this variable.

- (17) For your dependent variable:
 - (a) What is the **level of measurement** for this variable?
 - (b) Report the value(s) for the most appropriate measure of **central tendency**.
 - (c) Report the value(s) for **variability**.
 - (d) Draw the most appropriate graph for this variable.