

AP Statistics Summer Assignment 2017-2018

Welcome to AP Statistics! This course requires you to use both your math brain and your common knowledge brain at the same time to critically analyze the world around you with technology, numerical skills, and common sense.

This summer assignment should not take too much of your time, but this assignment does not reflect the difficulty of the course. AP Statistics is no joke!

You are required to take the AP Statistics exam in May which could earn you college credit for at least one college course, depending on the college/university you attend after high school. AP Statistics can earn you a lot of college credit!

Regarding your AP Statistics summer assignment:

- THIS ASSIGNMENT IS DUE ON THE FIRST DAY OF SCHOOL! NO EXCEPTIONS!
- You will complete this assignment without the help of other people. In fact, you will sign a pledge to confirm your individual work on the first day of school. Violating this pledge results in a zero for the assignment and the maximum punishment according to the student handbook.
- This summer assignment will be worth 5-10% of your first quarter grade.
- You will have a test in the first five or six days that will include material covered in this summer assignment.
- For your summer assignment, you will read chapters 1 through 3, answer guided reading questions for each chapter you read, and complete exercises for chapters 2 and 3.
- Do all of your work on other paper.

This summer assignment requires a textbook. You have two options for accessing the textbook.

1. Online textbook
 - a. Go to <http://www.phschool.com/>.
 - b. Use the web code **AZE 0641** to access the chapters and exercises.
 - c. Click the + sign next to "Part I" to find the first three chapters of the book.
2. Physical textbook
 - a. See me before you leave for the summer to borrow a textbook.
 - b. If you forget to borrow a textbook before you leave for the summer, you will need to access the textbook online. I will not come to school simply to give you a textbook. Plan in advance!

E-mail me at jjodrey@trlsd.org if you have questions or concerns. I will not check my school e-mail every day of the week during summer but I will check my inbox at least a few times a week. Be patient!

Have a great summer!

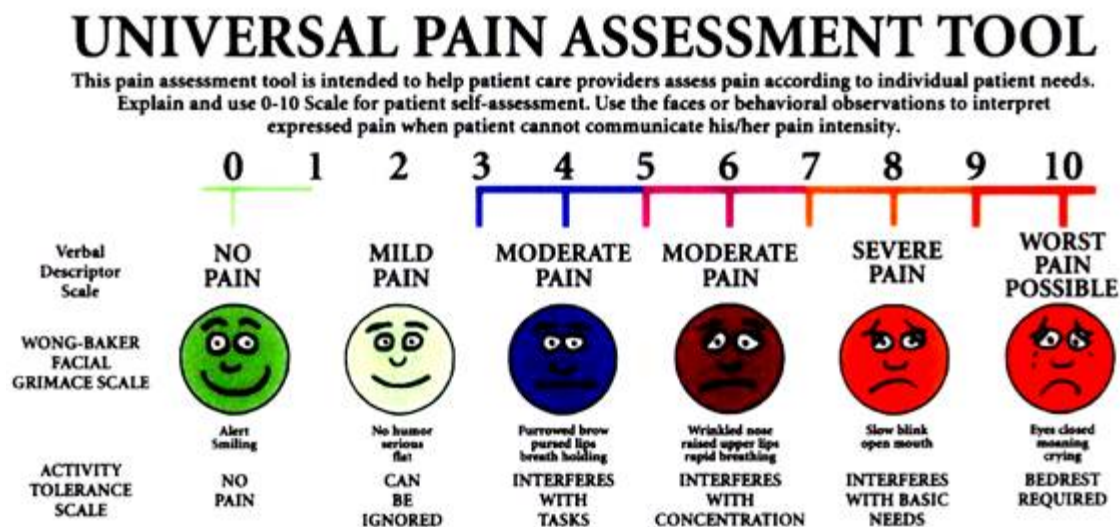
Mr. Jodrey

Chapter 1 Reading Guide Questions: Stats Starts Here

1. What is Statistics? DON'T RESTATE WHAT THE BOOK SAYS! Write your answer in your own words.
2. The state of Massachusetts released the following poster about teen safety in the workplace. Why is the phrase "Don't be a statistic" incorrect?
3. What kinds of people, jobs, fields, disciplines, etc., use Statistics?
4. What is at the heart of Statistics?
5. Your book explains questions and examples in three simple steps. What are those three simple steps?

Chapter 2 Reading Guide Questions: Data

1. Define "data".
2. What are the "Five W's" and why are they important for data?
3. Which of the "Five W's" are essential for data?
4. Define and give an example of the following terms. DON'T RESTATE THE BOOK'S DEFINITIONS! Write the definitions in your own words.
 - a. Sample
 - b. Population
 - c. Variable
 - d. Categorical variable
 - e. Quantitative variable
 - f. Identifier variable
5. Medical professionals use pain scales to rate their patients' pain. Is this a quantitative variable? Explain why or why not.



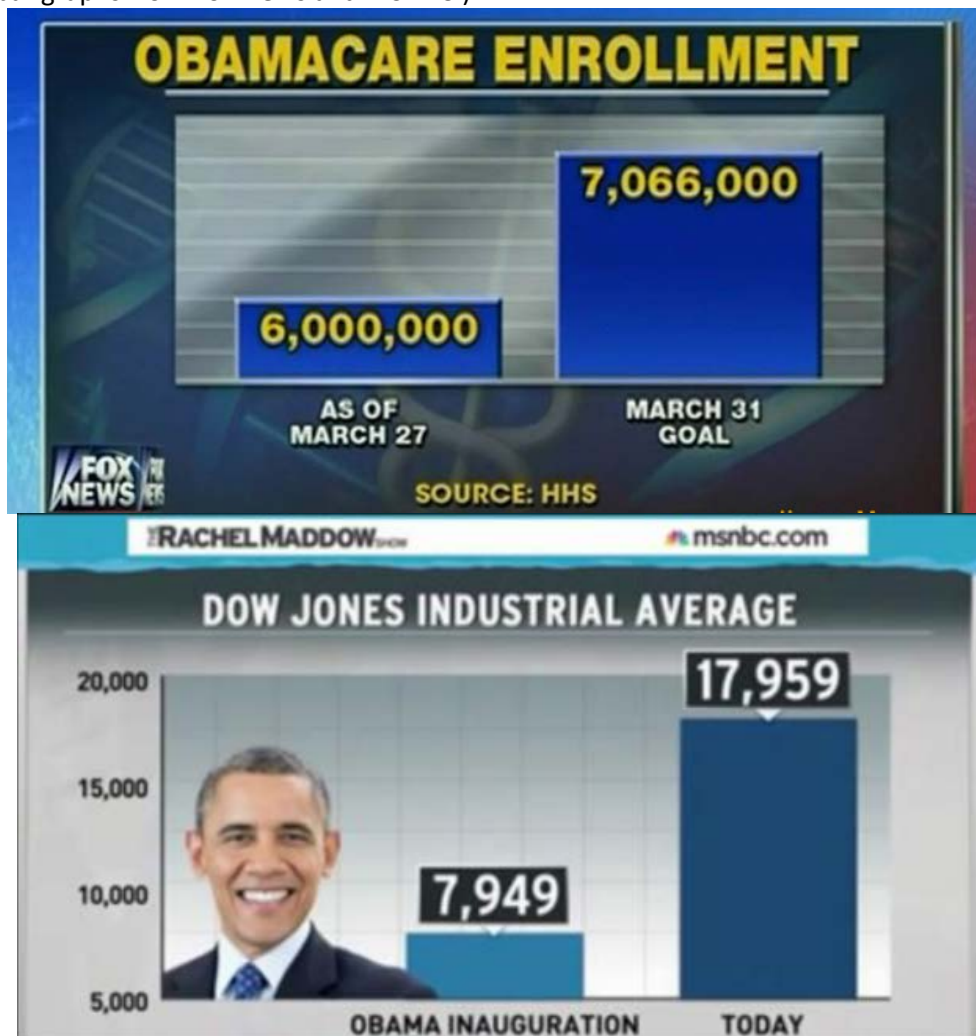
6. How can you make a categorical variable look like a quantitative variable?
7. Give an example of an identifier variable that people typically mistake for a quantitative variable.

Chapter 2 Exercises To Complete

- Page 16: #1, 3, 7, 9, 11, 13, 17, 23, 25

Chapter 3 Reading Guide Questions: Displaying and Describing Categorical Data

1. What are the three things you should always do first with data?
2. Define and give an example (or maybe draw an example?) of the following terms. DON'T RESTATE THE BOOK'S DEFINITIONS! Write the definitions in your own words.
 - a. Frequency table
 - b. Proportion
 - c. Relative frequency table
 - d. Distribution
 - e. Area principle
 - f. Bar chart
 - g. Relative frequency bar chart
 - h. Pie chart
 - i. Contingency table
 - j. Marginal distribution
 - k. Conditional distribution
 - l. Independent (when talking about variables)
 - m. Segmented bar chart
 - n. Simpson's Paradox
3. Use the area principle to explain why each of the following bar graphs are misleading. (Yes, these are real bar graphs from Fox News and MSNBC.)



Chapter 3 Exercises To Complete

- Page 37: #5, 7, 9, 11, 19, 21, 23, 25, 29, 31, 33, 37, 39