

AP Statistics
Summer Assignment

- Show **ALL** work.
- This assignment is worth 10% of your 1st quarter grade.
- Assignment is due **Friday, August 17th** by 2:00 PM in the labeled box located in the main office.
- Any assignments that are late will be penalized 20 points each day beginning with **Monday, August 20th**.
- If you decide that you would rather not participate in this course you must contact guidance by **July 13th**.

Assignments:

1. Complete Chapter One Notes Packet containing notes on sections **1.1, 1.2, 1.3,** and **1.4**.
2. Assignment 1: p. 8(**3, 4, 5, 6, 8, 10**)
3. Assignment 2: p. 16(**13, 14, 16, 17, 19, 21, 22, 24**)
 - a. Use graph paper and a ruler to construct bar graphs and dotplots.
4. Assignment 3: p. 25 (**35, 36**)
 - a. Use graph paper and a ruler to construct bar graphs and dotplots.
5. Complete Chapter Two Notes Packet containing notes on sections **2.1**.
6. Assignment 4: p. 33(**1, 3, 5, 8, 10**)

If you have any questions please email me at averrastro@tivertonschools.org

Chapter 1 Notes

The Role of Statistics and the Data Analysis Process

Section 1.1: Why Study Statistics?

Explore the given examples for each reason to study statistics, and then write an example of your own.

- Reason One: **Being Informed**

- Reason Two: **Making Informed Judgments**

- Reason Three: **Evaluating Decisions That Affect Your Life**

Section 1.2: The Nature and Role of Variability

Read the first line of the section. The science of statistics focuses on three things:

- 1.
- 2.
- 3.

What is it about variability that makes the study of statistics so important?

Section 1.3: Statistics and the Data Analysis Process

Vocabulary Word:	Definition
<i>Population:</i>	
<i>Sample:</i>	
<i>Descriptive Statistics:</i>	
<i>Inferential Statistics:</i>	

What is the relationship between a population and a sample?

What are the two branches of statistics?

The data Analysis Process

The steps in planning and conducting a statistical study are illustrated in Example 1.3. Briefly describe how each is carried out in the example:

1. Understanding the nature of the problem.
2. Deciding what to measure and how to measure it.
3. Data collection.
4. Data summarization and preliminary analysis.

5. Formal data analysis.

6. Interpretation of results.

Homework: 3, 4, 5, 6, 8, 10

Complete on a separate sheet of paper

Section 1.4: Types of Data and Some Simple Graphical Displays

Vocabulary Word:	Definition
<i>Variable:</i>	
<i>Data:</i>	
<i>Categorical Data:</i>	
<i>Numerical Data:</i>	
<i>Univariate Data:</i>	
<i>Bivariate or Multivariate Data:</i>	

Provide another name for the following types of data:

1. Categorical

2. Numerical

Given an example of each of the following types of data sets:

1. Univariate categorical:
2. Univariate numerical:
3. Bivariate or multivariate categorical:
4. Bivariate or multivariate numerical:

Two Types of Numerical Data:

Explain how to recognize numerical data that is continuous and give an example:

Explain how to recognize numerical data that is discrete and give an example:

Vocabulary Word:	Definition
<i>Continuous:</i>	
<i>Discrete:</i>	
<i>Frequency Distribution for Categorical Data:</i>	
<i>Frequency:</i>	

<i>Relative Frequency:</i>	
<i>Bar Graph:</i>	
<i>Dot Plot:</i>	

When is it appropriate to use a bar graph?

When is it appropriate to use a dotplot?

Homework: 13, 14, 16, 17, 19, 21, 22, 24

Complete on a separate sheet of paper, Graph paper will be helpful for the bar graphs and dot plots, use rulers.

Section 2.1: Statistical Studies: Observation and Experimentation

In what ways are observational studies and experiments similar?

What are some important differences between observational studies and experiments?

Describe the confounding variable from each of the three examples found on page 31.

1.

2.

3.

Drawing Conclusions from Statistical Studies

Under what conditions is it possible to show a cause-and-effect relationship?

Homework: p. 33 (1, 3, 5, 8, 10)