

AP Statistics Summer assignment - (dstephens@bcps.org)

If you plan on purchasing a new graphing calculator over the summer, please contact me first.

Students should come to the 1st class ready to ask questions about the readings/videos and/or the assigned problems.

A test will be given during the second week of class.

Please keep in mind that most of the material is review.

The following assignment is due on the first day of class. Please note the assignment is in two parts.

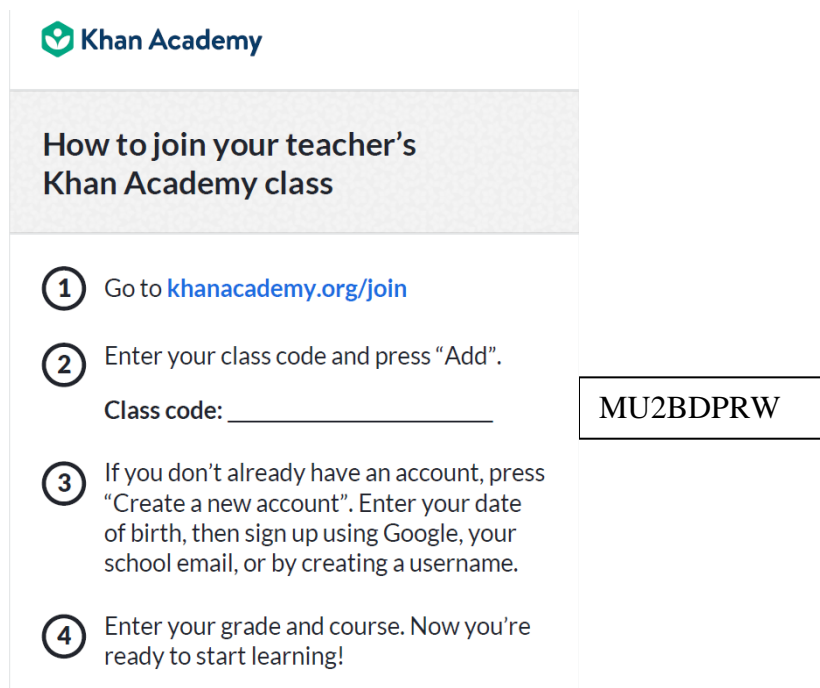
<http://www.apstatsguy.com/>

Part I: Go to the above website and watch/take notes on the following videos:

Summer Video One, Two, Three, and Four

Unit one videos 1, 2, 4, 7, 12, 13, 14

Part II: Join Khan Academy using the steps below.



The image shows a screenshot of the Khan Academy website. At the top left is the Khan Academy logo. Below it is a grey header with the text "How to join your teacher's Khan Academy class". The main content area contains four numbered steps:

- 1 Go to khanacademy.org/join
- 2 Enter your class code and press "Add".
Class code: _____
- 3 If you don't already have an account, press "Create a new account". Enter your date of birth, then sign up using Google, your school email, or by creating a username.
- 4 Enter your grade and course. Now you're ready to start learning!

To the right of the "Class code" input field, there is a rectangular box containing the text "MU2BDPRW".

(5) You do not need to submit your Khan Academy work. I will be able to track your work.

Below are topics you will be tested on:

Topics:

Random Variables (Quantitative/Qualitative)

Population (parameter) /Sample (statistic)

Quantitative Random Variable (Discrete/Continuous)

Type of graph to make for a given set of data

Create and interpret a bar graph

Create and interpret a dot plot; stem plot; and histogram

Create and interpret a box plot (by hand/TI-graphing calculator)

Side by side boxplots: Create and Interpret

Calculate outliers in a quantitative data set

Calculate the Mean, Median, and Mode for a quantitative data set

Calculate and interpret Standard Deviation for a quantitative data set

Identify and interpret the 5-number summary for a quantitative data set

Calculate the mean, median, standard deviation, and 5-number summary on a graphing calculator for a quantitative data set

Skewed data/bimodal data/gaps in data/outliers in data

Describe a distribution using **Shape, Outliers, Center, and Spread (SOCS)**

Comparing two distributions using **Shape, Outliers, Center, and Spread (SOCS)**

When to use Mean/Standard Deviation or Median/IQR for a quantitative data set

Shifting/scaling data (Linear Transformations): What happens to summary statistics?