

# Red Bank Catholic High School

## AP Statistics Summer Assignment

**Welcome to AP Statistics!** I am looking forward to having you in class in the fall.

AP Statistics is not an easy class but not very difficult either. No AP class is easy, of course—so expect to spend lots of time reading and studying outside of class, as well as in class. But AP Statistics is special, in that it is a course that combines mathematics, critical thinking and language. There is reading and writing involved. In fact, if you think math is all formulas, equations, and calculations, you'll soon find that this isn't really a math course. It's a course in reading, analyzing, thinking, and writing clearly. On the AP test itself, you'll be asked to write descriptive paragraphs and concluding sentences. You'll have to explain the reasoning behind the method you use and the conclusions you find.

You will be expected to work individually or in small groups to plan and perform data collection and analyses. You'll have ample opportunity to think through problems, collect and analyze data, make conjectures and decisions, reach conclusions, and share outcomes with other students as well as the teacher.

In order to be ready to hit the ground running in September, you have some preliminary work (Chapters 2-5 in the textbook: Stats Modeling the World 2nd edition). To accomplish this goal, we will be using Khan Academy over the summer to expose you to these earliest statistics concepts and allow us more time in class to focus on more challenging topics and specific exam prep strategies.

The summer assignment consists of 27 Khan Academy problem sets, each containing 4 questions. You must achieve a score of 75% or better on each set to earn credit. The assignment will be due by 11:59 PM on Friday, September 9, 2022. A list of the assignments, as well as instructions for creating an account, joining our class, and accessing instructional videos, are included on the following pages.

Please take this assignment seriously, as we will use the material presented in these first four chapters throughout the school year. It is the groundwork for all of the knowledge you will build throughout the year. Do not wait until the last minute to complete these problem sets.

If you have any questions or concerns regarding the summer assignment or the expectations for the course, please send me an email. I will be checking my email frequently as well as monitoring progress on Khan Academy over the course of the summer.

See you in September!

Ms. Christina Alexander

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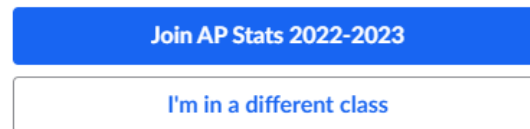
## **List of Khan Academy Assignments:**

1. Individuals, variables, and categorical & quantitative data
2. Read two-way frequency tables
3. Create two-way frequency tables
4. Read two-way relative frequency tables
5. Interpret two-way tables
6. Identifying marginal and conditional distributions
7. Marginal distributions
8. Conditional distributions
9. Mosaic plots
10. Creating dot plots
11. Reading dot plots & frequency tables
12. Create histograms
13. Read histograms
14. Reading stem and leaf plots
15. Shape of distributions
16. Describing distributions
17. Comparing distributions
18. Calculating the mean
19. Calculating the median
20. Calculating mean and median from data displays
21. Effects of shifting, adding, & removing a data point
22. Estimating mean and median in data displays
23. Interquartile range (IQR)
24. Creating box plots
25. Reading box plots
26. Interpreting quartiles
27. Identifying outliers

## How to create a Khan Academy account and join our class:

- Go to <https://www.khanacademy.org/join/Y5UFM3GM>

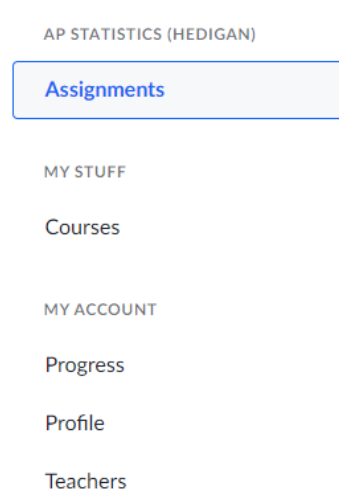
You're joining: AP Stats 2022-2023



Join AP Stats 2022-2023

I'm in a different class

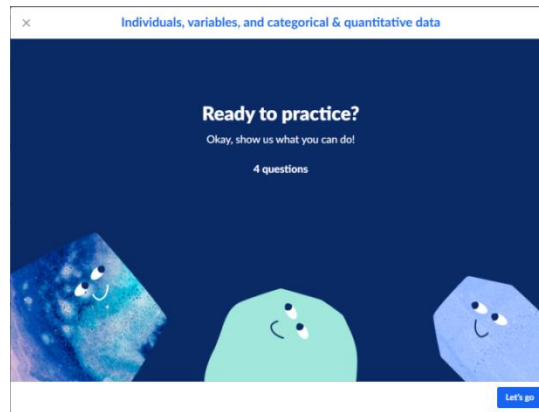
- Create a new account. Khan Academy will ask for your:
  - Date of Birth
  - Choose “Sign up with Email”
  - Please use your full first and last name, and choose an email address and password that you will remember.
- Already have an account? Choose “Log in to your existing account” instead and type in your email and password.
- Choose “Assignments” at the top of the menu on the left hand side of the screen.



- All of the required assignments will show up in a list. Start at the top and work your way down.

## How to access instructional videos:

- There are many ways to access the instructional videos; however, I will describe the most straightforward way below.
- When you click on any problem set, a new window will appear with the name of the problem set at the top, as shown.



- From here, you have two options:
  1. You can click the “Let’s go” button at the bottom of the window to begin the problem set.
    - If you find that you need help on any particular problem, you can scroll to the bottom of the problem and select “Watch a video or use a hint”.
    - Under “Related Content” any applicable video lessons will appear that will open in a new tab when selected. You can watch the video, then close the tab and answer the question.
  2. You can click on the name of the problem set at the top of the window (“Individuals, variables, and categorical & quantitative data” in the example above)
    - This will change the background page. Click the “x” on the problem set window to close it.
    - The page will show the first question in the problem set, but there will be a menu on the left hand side that will show all of the resources for that section.
    - The instructional videos will appear in the menu with play symbols next to them. Any videos above the blue highlighted problem set will be applicable to those questions.

Math > AP®/College Statistics > Analyzing categorical data > Analyzing one categorical variable

Identifying individuals, variables and categorical variables in a data set

Practice: Individuals, variables, and categorical & quantitative data

Creating a bar graph

Reading bar charts: comparing two sets of data

Next lesson

Two-way tables

### Individuals, variables, and categorical & quantitative data

AP.STATS: VAR-1 (EU), VAR-1.B (LO), VAR-1.B.1 (EK), VAR-1.C (LO), VAR-1.C.1 (EK), VAR-1.C.2 (EK)

Google Classroom Facebook Twitter Email

The girl's basketball team played a game this Wednesday. Here are some of the statistics for the players from the game.

Player name	Free throw percentage	Assists	Class
Simone	100%	4	Junior
Maricel	75%	3	Junior
Derin	80%	7	Senior
Alli	90%	2	Senior
Asha	50%	0	Sophomore
...	...	...	...

The individuals in this data set are:  
Choose 1 answer:

(A) Basketball games

(B) Basketball scores

Do 4 problems ○○○○ Check