

AP Statistics 2026 Summer Assignment

Welcome to AP Statistics! My name is Mrs. Lindenberg and I am very excited to be teaching at SCHS next school year and really looking forward to working through AP Statistics with you.

Darren Starnes and Josh Tabor, authors of our textbook, *The Practice of Statistics, 8th Edition*, write on page 2 of the text: "We live in a world of data. Every day, the media report poll results, outcomes of medical studies, and analyses of data on everything from gasoline prices to elections to weather to the latest technology. These data are trying to tell us a story. To understand what the data are saying, we use statistics."

Statistics is defined as the science and art of collecting, analyzing, and drawing conclusions from data, which is what you will be doing for the summer assignment.

Your AP Statistics summer assignment will be worth 160 points and consist of three parts. Part 1 can be handed in during the first AP Statistics class or turned in on Google Classroom before the start of the first AP Statistics class. Parts 2 and 3 must be turned in on Google Classroom before the start of the first AP Statistics class. This will affect your first quarter, and therefore 1st semester grade. Email me at slindenberg@scspk12.org if you have any questions on this summer assignment.

Part 1 (30 points): Collect Some Data

Let's get some data to work with. To do this, I want you to ask 10-15 family members and/or friends the questions below. Do not ask strangers. Do not put this on social media for anyone to respond to. Kindly ask people directly if they will participate. Tell them you are taking an AP Statistics course next school year and need to collect some data for a summer assignment. Don't force or coerce anyone to participate. Thank them for their time whether they participate or not. Do not collect names, just this specific data below. **Keep each person's responses separate so you can use the data for Part 2 of the project.** You will need to turn in each person's responses as part of the grade. You can collect the data using either of these methods:

1. Ask family and friends these questions and you record the responses, OR
2. Provide family and friends with a typed out version of these questions and response choices for them to mark and then return to you. Notice some questions below have specific response choices and some are open-ended.

Note: You might wonder if you can create a Google Form to do this. The answer is yes, but not for this project. The limitation is that a Google Form you create on your SCHS account can only be shared within the domain of Springfield Catholic Schools, so family and friends without a Springfield Catholic Schools account won't be able to access it, and that means it's not the best choice for right now. Do not create a Google Form using another account.

Questions:

- What is your relationship to the person asking you to complete this survey? Provide these choices for responses:
 - Family
 - Friend
- What age range do you fall into? Provide these age ranges:
 - Under 18
 - 18-24
 - 25-34
 - 35-44
 - 45-54
 - 55+
- How many pets do you have? Provide these choices for responses:
 - 0
 - 1
 - 2
 - 3
 - 4+
- How many different states in the U.S. have you visited? Provide these choices for responses:
 - 0-9
 - 10-19
 - 20-29
 - 30-39
 - 40-49
 - 50
- Of the following games, which one do you like best? Choose only one.
 - Battleship
 - Clue
 - Monopoly
 - Mousetrap
 - Sorry
 - Uno
- What is your favorite season of the year? Provide these choices for responses:
 - Spring
 - Summer
 - Fall
 - Winter
- How many days in a typical week do you spend some time reading a book? Provide these choices for responses:
 - 0
 - 1
 - 2
 - 3
 - 4
 - 5
 - 6
 - 7
- When you read a book, which format do you prefer? Provide these choices for responses:
 - Print
 - Digital
- Commute question (This is a 2-part, free-response question):
 - How many miles do you live from work or school or church:
 - How long does it take you to get to that destination:

Part 2 (100 points) : Organize & Graph the Data

Once you have some data, the next thing you need to do is determine how to organize the data. You will be organizing the data in Google Sheets. When you are logged into your Springfield Catholic Schools account, go to your Google Drive and open a new Google Sheet. Make this Google Sheet have 10 tabs across the bottom. Each tab will be used to organize specific data and create a graph of that data from your survey. You will need to determine how you want to show the raw data. I've included examples of how you could organize the data for the first 7 tabs, but it could be organized or shown in a different way. Once your data is organized in a tab, create the specific requested graph with the requested data. Make sure your graphs look similar to the examples in style (type of graph, dashed line, dotted line, etc.) and include a title, axis labels, data labels, legend, etc. Make sure your graphs are pleasing to the eye.

Note: I realize you might have to play around with Google Sheets to figure out how to do some of these graphs. That is one of the objectives of this assignment. You might not get the graph to do what you want the first time around. Keep at it. You can do this. Find help on graphs (charts) in Google Sheets here:

<https://support.google.com/docs/topic/1361474?hl=en&sjid=15890413111774360215-NC>

- Tab 1: Vertical bar graph of ages
- Tab 2: Side by side vertical bar graph of favorite season by family and friends
- Tab 3: Stacked vertical bar graph of favorite season by family and friends
- Tab 4: Line graph of number of pets
- Tab 5: Double line graph of U.S. states visited by family and friends
- Tab 6: Pie chart of favorite game
- Tab 7: Scatter plot with trend line of commute time and distance
- Tab 8: Your choice of graph and which data from the survey to use
- Tab 9: Your choice of graph and which data from the survey to use
- Tab 10: Your choice of graph and which data from the survey to use

Here is a screenshot showing where the 10 tabs get created and show up on a Google Sheet:

AP Statistics Summer Project

Topic	Time	Miles
	11	5
	12	8
	6	3.5
	18	10.5
	25	15
	30	20
	10	5
	13	6
	18	9
	20	14
	30	23
	60	40
	25	11

Drive Time vs. Miles Driven

Number of Miles

Time (in minutes)

Statement:
It is clear from the scatterplot that the time to destination increases as the miles to destination increases. This is what I would expect to happen.

Add a tab

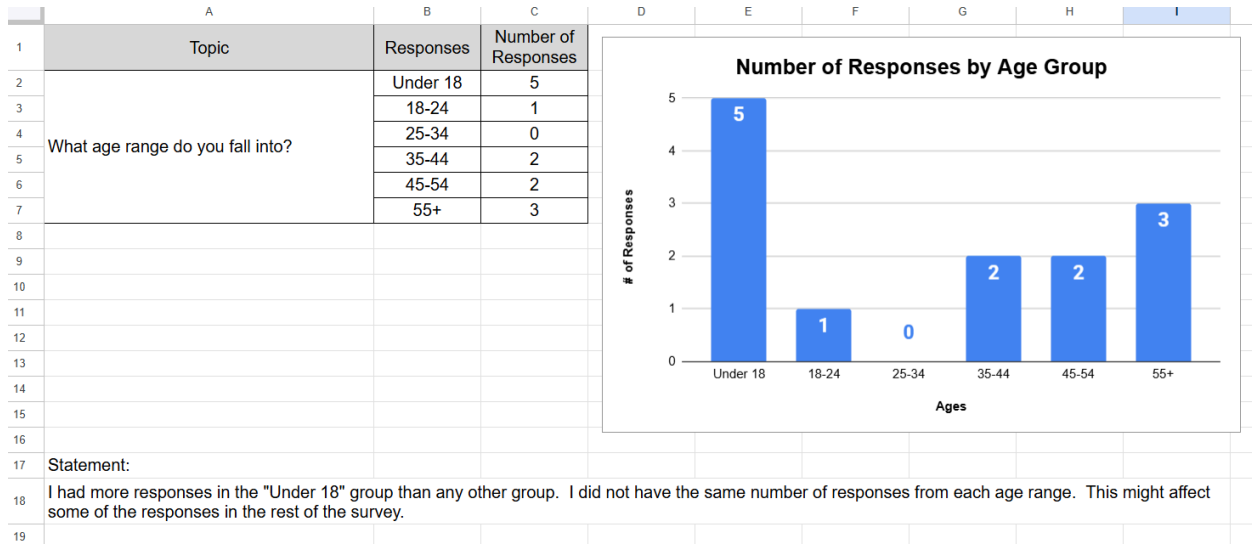
Tabs

Ages (Bar) Season (Side by Side Bar) Season (Stacked Bar) Pets (Line) States (Double Line) Games (Pie) Commute (Scatter w/Trend)

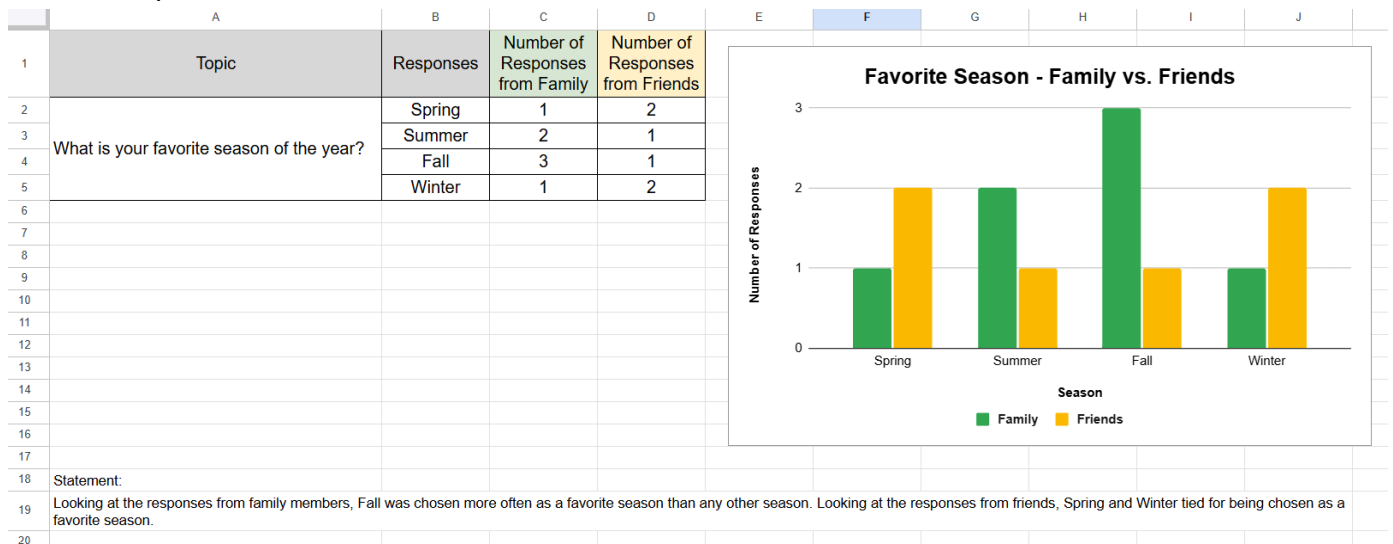
Part 3 (30 points): Draw a Conclusion

In each of the 10 tabs of your Google Sheet, make some statement or conclusion about the data. You might even add if the data is what you expected or if you think anything might have affected your data. Each statement or conclusion should be 1-3 sentences long. See the examples for ideas.

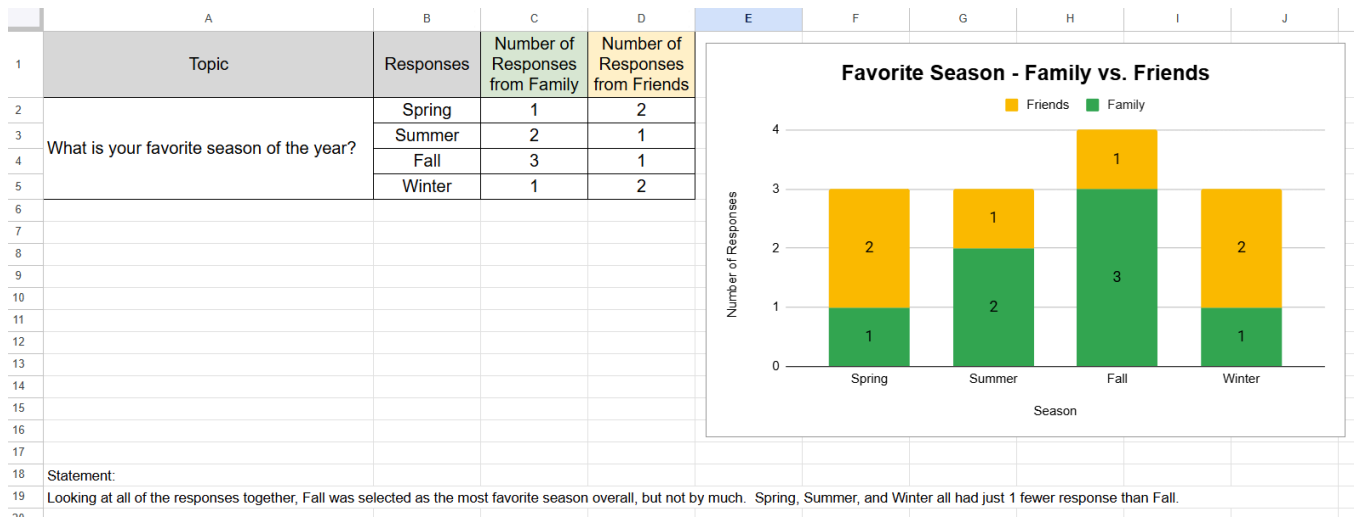
Tab 1 example:



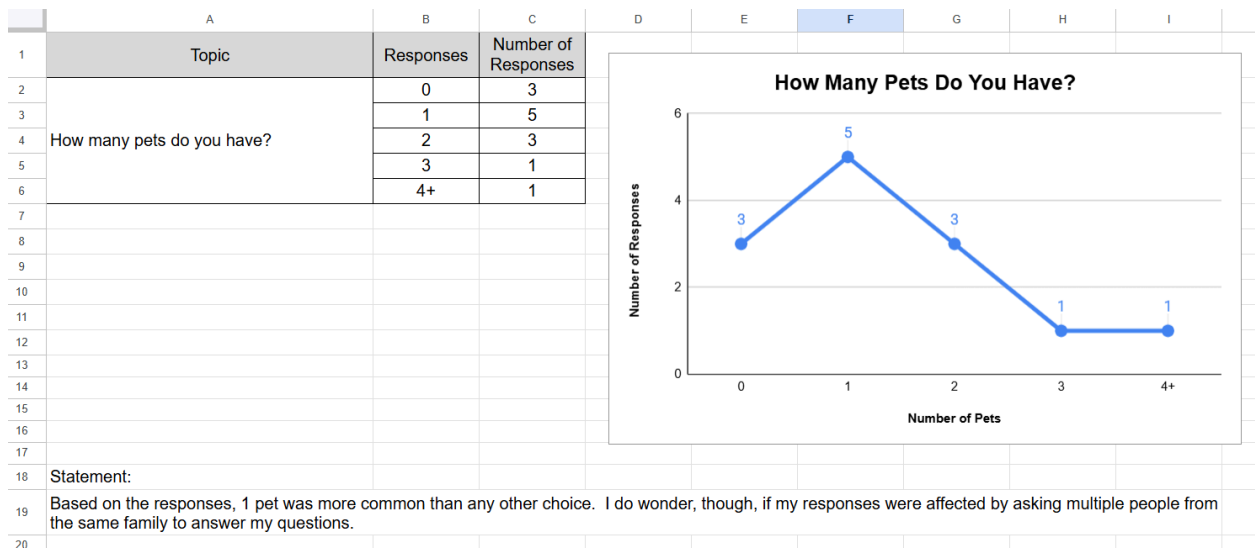
Tab 2 example:



Tab 3 example:



Tab 4 example:



Tab 5 example:

