

CHAPTER 2 PROJECT

Ready... SET... Go

Venn diagrams can be a useful way to display the results of a survey with multiple questions. At a glance of the diagram, you can get a general feel of the ways in which the experiences or knowledge of a group of people overlap. In this project, you will collect data in a survey and then use a Venn diagram to analyze the results.

Step 1: Design the Survey

Create a survey with 3 questions that are binary in their responses. In other words, each question on the survey has only 2 options to choose from. (This is easiest if you think of yes/no questions.) You may use the following questions or come up with some of your own. If you choose to make up questions on your own, remember that they must only have a choice of 2 responses.

- Were you born in this state? [**Note:** Specify which state.]
 - Have you ever traveled to another country?
 - Can you fluently speak another language besides English?
1. Create three questions if you choose not to use the ones above.
 2. How many possible answer combinations are there? _____

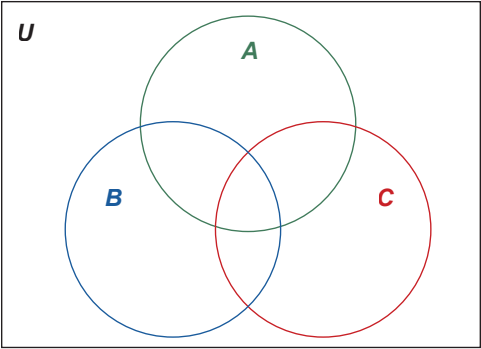
Step 2: Collect and Organize the Data

3. Survey 50 people using your chosen questions and record their answers in a table similar to the one shown here. You will need to complete the table to include all of the possible combinations of responses.

Survey Results			
Number of Responses	Born in This State?	Traveled to Another Country?	Fluently Speak Another Language?
	Yes	Yes	Yes
	Yes	Yes	No
	Yes	No	Yes
	⋮	⋮	⋮

Step 3: Display the Data

Now that you’ve collected and organized the data, it’s time to display the results with a 3-circle Venn diagram like the one provided.



4. Begin by labeling the circles. Think about what type of labeling your Venn diagram will require. How will you label the circles?
5. As you begin to populate the circles with the response numbers, where should you start?
6. Finish populating your diagram with results.

Step 4: Analyze and Interpret the Results

Answer the following about your survey using complete sentences.

7. Using the Venn diagram you created, summarize your results.
8. What conclusions can you draw from the Venn diagram?
9. Why was it important that the questions only had a choice of 2 responses?

Step 5: Collect and Organize New Data

10. Now survey 50 different people using the same questions. Record your results in the same manner as above.

Step 6: Display

11. Using the same method as before, draw a second Venn diagram to display the results of the second survey.

Step 7: Analyze and Interpret

Answer the following about your survey.

12. Using the second Venn diagram, summarize the second set of responses that you gathered.
13. What conclusions can you draw from this Venn diagram?

Step 8: Compare

Answer the following questions using complete sentences in order to compare the diagrams.

14. Do the two Venn diagrams look the same? If the Venn diagrams are not the same, describe how they are different.
15. What do you think a Venn diagram would look like if it contained the results from all 100 people you surveyed combined?
16. Would you be able to draw any more conclusions with the data combined? Why or why not?