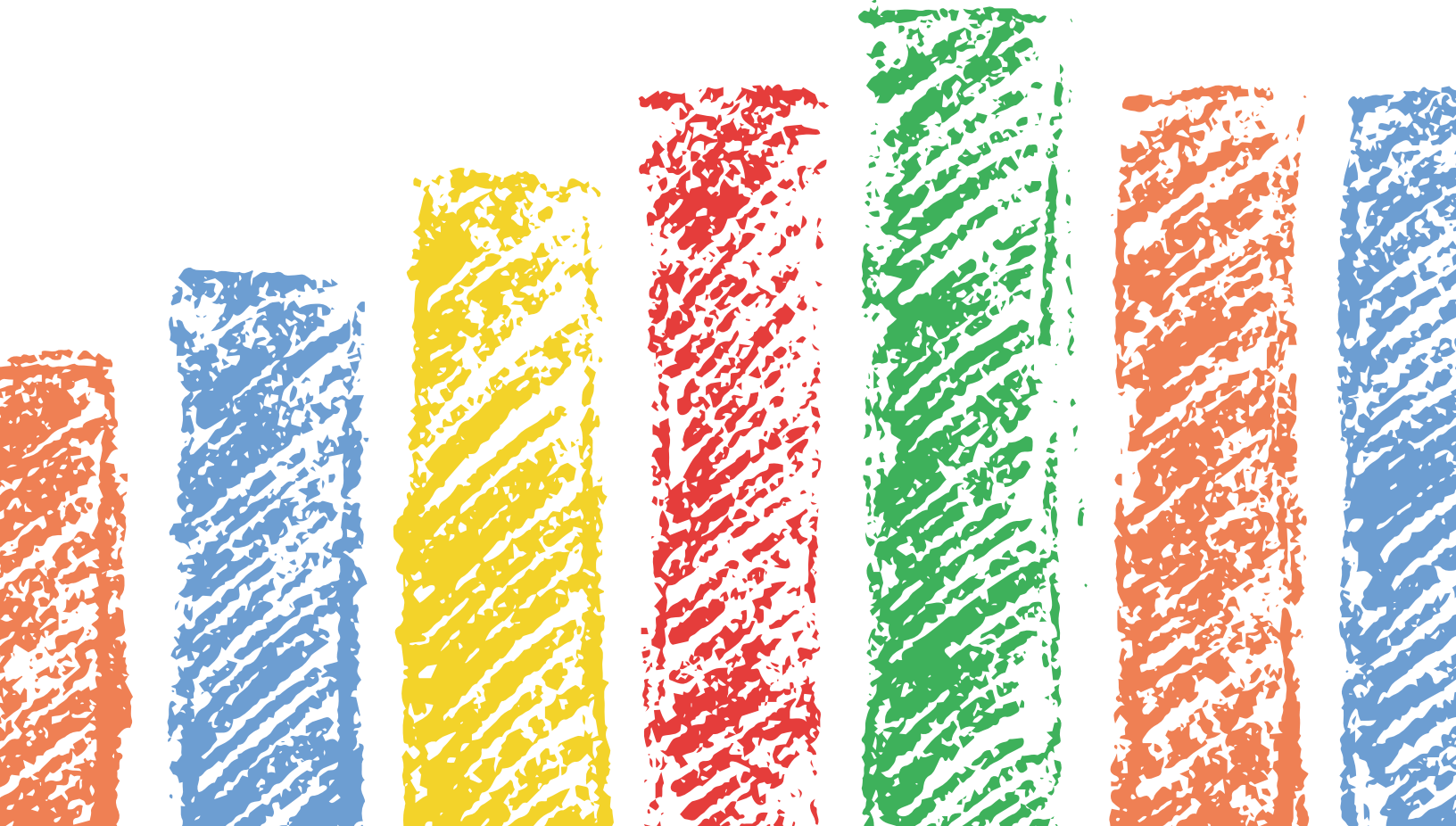




## DATA KIDS

# Who are your favorite characters?



# Data Kids: Who Are Your Favorite Characters?

Presented by: Tableau

In this activity, you will **collect, count, summarize,** and **graph** data about the characters in your favorite movie, TV show, or book.

## Learning Objectives

- Explore and see patterns in an everyday activity
- Learn how to collect and organize data
- Make a summary table and graph of your results

## Supplies

- Something to write with
- Paper
- Printer optional (print activity, and template)
- For the extra credit—Tableau

## Warm-Up

Choose a movie, TV show, or book you want to explore. Think about the characters. What do they look like? How are they different? What do they have in common?

## Instructions

1. Create a grid, using the example below as a guide. Write the names of all the characters from the movie, show, or book that you chose in the first column. (Add as many rows as you need)

<b>Character</b>			
Max			
Jessie			
Rascal			
Scout			
Teddy			

2. What are the traits that you want to observe about them? Write them across the top row of your grid. Here we explore hair and eye colors and species. What else could you study? Age? Accessories?

<b>Character</b>	<b>Type (human, dog, cat, etc.)</b>	<b>Hair Color</b>	<b>Eye Color</b>
Max			
Jessie			
Rascal			
Scout			
Teddy			

3. Collect your data by answering the questions for each character in your grid.

Character	Type (human, dog, cat, etc.)	Hair Color	Eye Color
Max	Cat	Black	Green
Jessie	Human	Brown	Green
Rascal	Dog	Black	Brown
Scout	Human	Blonde	Blue
Teddy	Human	Red	Blue

**Congratulations! You made a data table.**

4. Using the data table that you created, write out all the different traits you observed about the characters. From our example, we discovered:

Max and Rascal have **black** hair

Jessie has **brown** hair

Teddy has **red** hair

Scout has **blonde** hair

**Younger learners:**

Create a **Tally Sheet** to count how many characters have each hair color. One tally counts as one character.

Hair Color	Number of Characters
<i>Black</i>	//
<i>Brown</i>	/
<i>Red</i>	/
<i>Blonde</i>	/

Now you can see that two characters have black hair, one has brown, one has red, and one has blonde hair.

**Older learners:**

To keep track of your counts, create a **Summary Table** for each trait you observed like the example below.

Hair Color	Count of how many Characters?	Fraction	Percent
<b>Black</b>	2		
<b>Brown</b>	1		
<b>Red</b>	1		
<b>Blonde</b>	1		
<b>Totals</b>			

5. To find the total, add the number of black, brown, red, and blonde ( $2+1+1+1+1=5$ ).

Hair Color	Count of how many Characters?	Fraction	Percent
<b>Black</b>	2		
<b>Brown</b>	1		
<b>Red</b>	1		
<b>Blonde</b>	1		
<b>Totals</b>	<b>5</b>		

6. **Optional:** To make comparisons easier, calculate fractions and percentages.

- For example, one out of 5 characters or  $1/5$  has brown hair.
- Your calculator will tell you that  $1/5$  is also 0.20.
- To get the percentage, multiply 0.20 by 100 to get 20%.

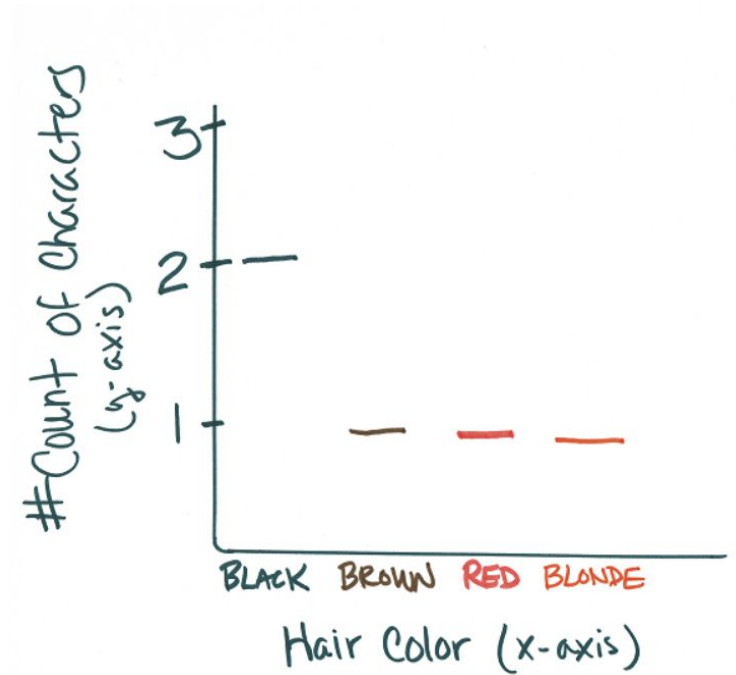
Hair Color	Count of how many Characters?	Fraction	Percent
<b>Black</b>	2	$2/5$	40%
<b>Brown</b>	1	$1/5$	20%
<b>Red</b>	1	$1/5$	20%
<b>Blonde</b>	1	$1/5$	20%
<b>Totals</b>	<b>5</b>	<b><math>5/5</math></b>	<b>100%</b>

7. Bar charts make it easy to show and compare categories of data. Let's draw one by hand.

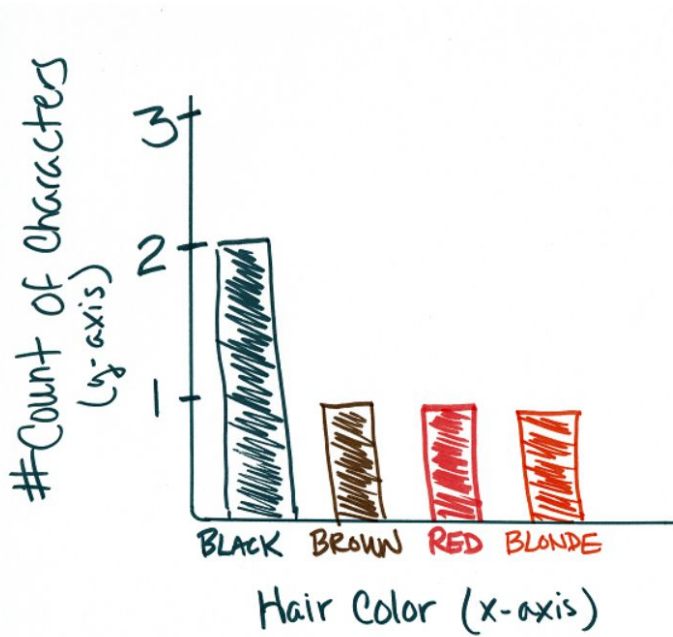
- Write each trait under the lower horizontal line (x-axis)
- List the number of characters to the left of the vertical line (y-axis)



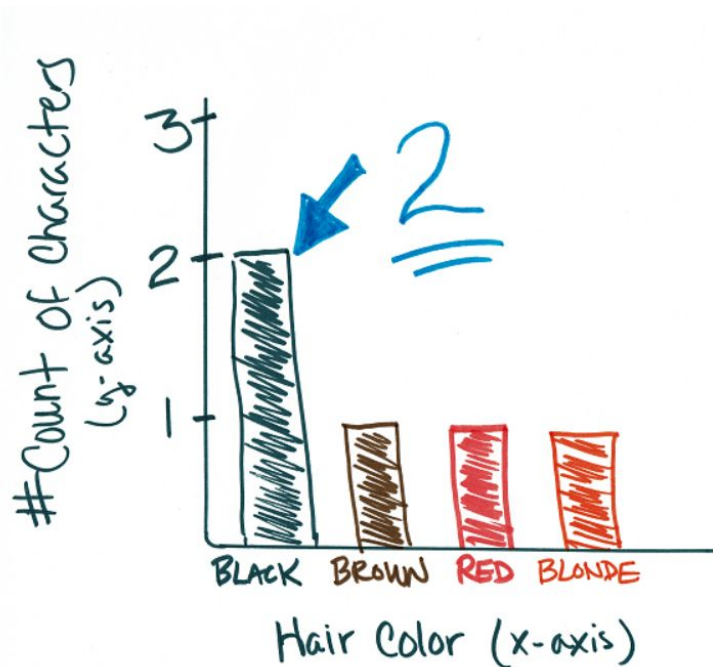
- Draw a line to mark your count for each trait.



- Draw a rectangle with that line and color it in (like below).



- The bar graph makes it fast and easy to see how many characters had black hair.



Adults—Follow Tableau on social media and share your child’s data journey by tagging your photo posts with #DataKids. Keep checking the Data Kids website for more fun activities.



## Extra Credit: Family Edition

With the help of an adult, use your data table, and create your viz in Tableau.

If you have it already, use Tableau Desktop. If you don't have Tableau Desktop, download [Tableau Public](#) for free today.

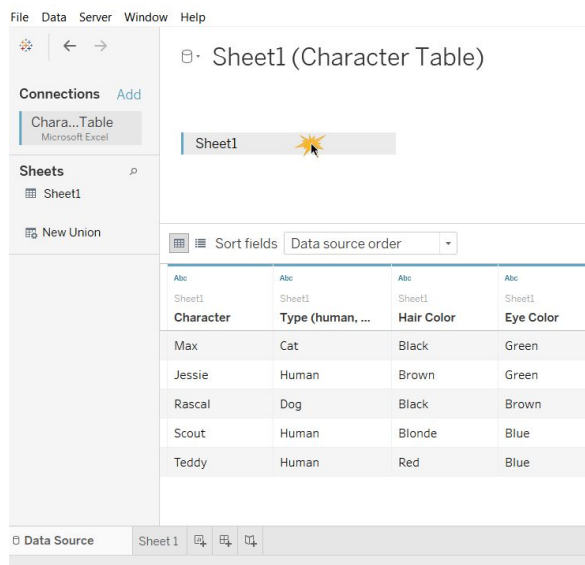
**Instructional Note:** Set up an Excel worksheet as a 'data table' that is appropriate for working in Tableau and other software programs. This sample data table is great for all ages and learners (including adults!). [Download Excel template](#)

### Make a Bar Graph in Tableau

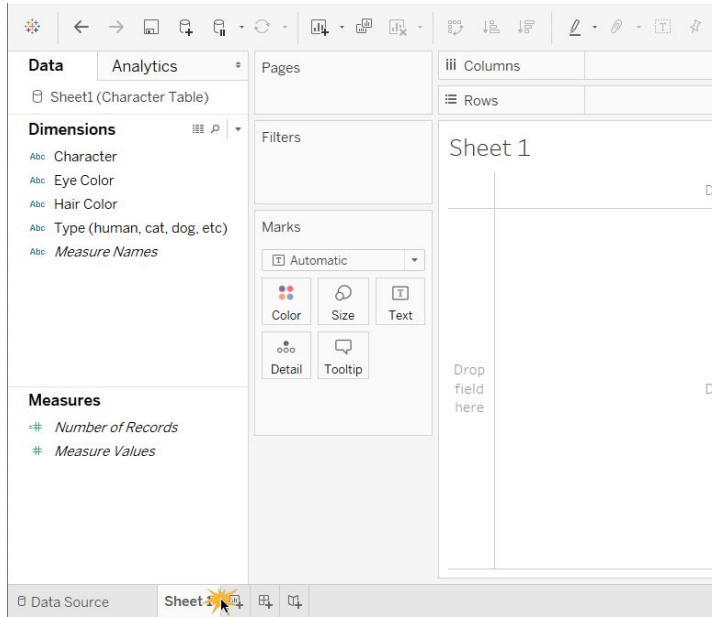
1. Open Tableau.
  - a. Navigate to the left-hand pane, and open your saved Excel file.



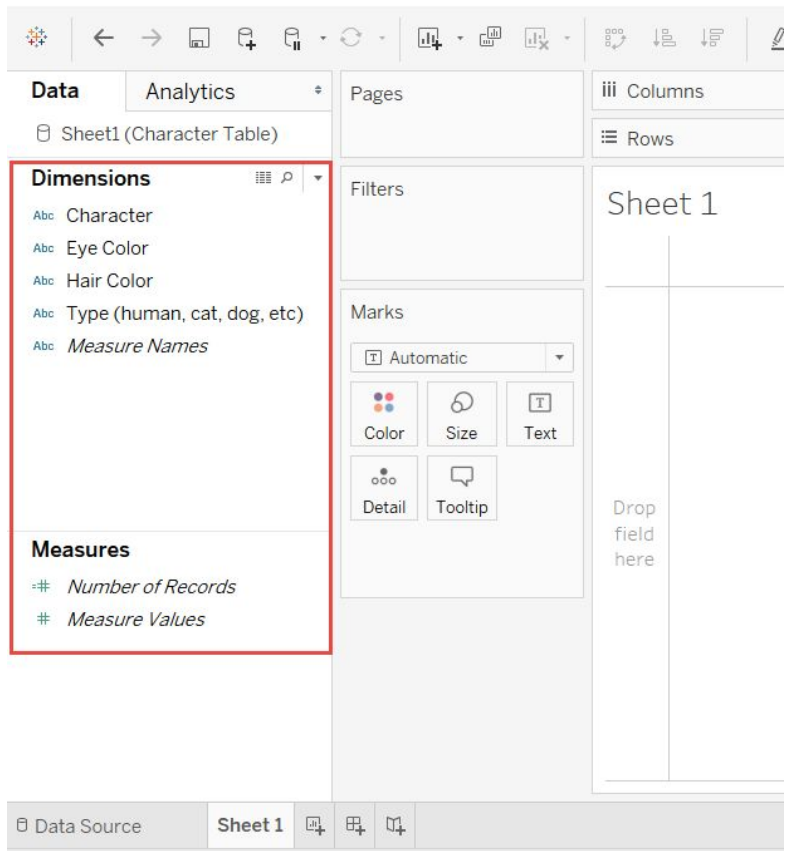
2. Drag in the sheet where you recorded your data.



- a. You can see a similar sample of the data you collected.
- b. Open Sheet 1 to build your chart.



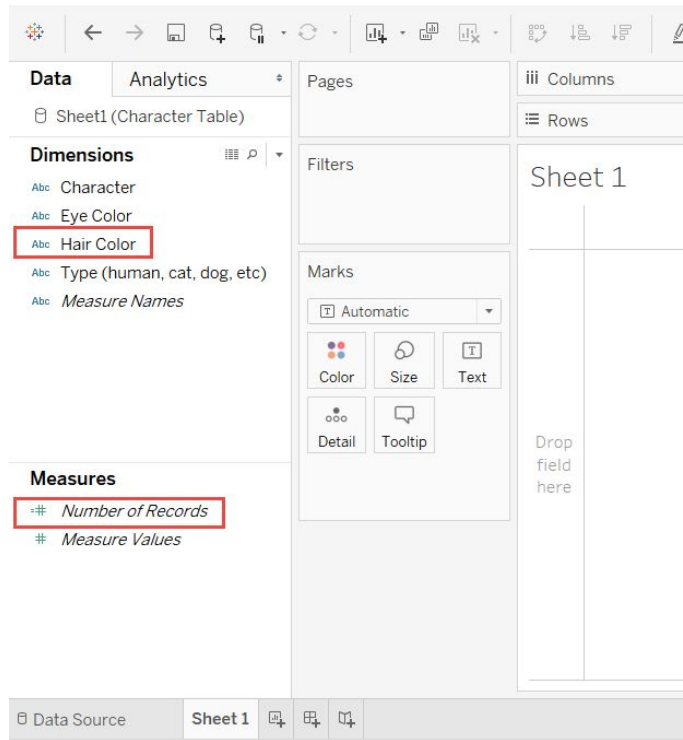
Look at the characteristics you recorded on the left side of the screen.



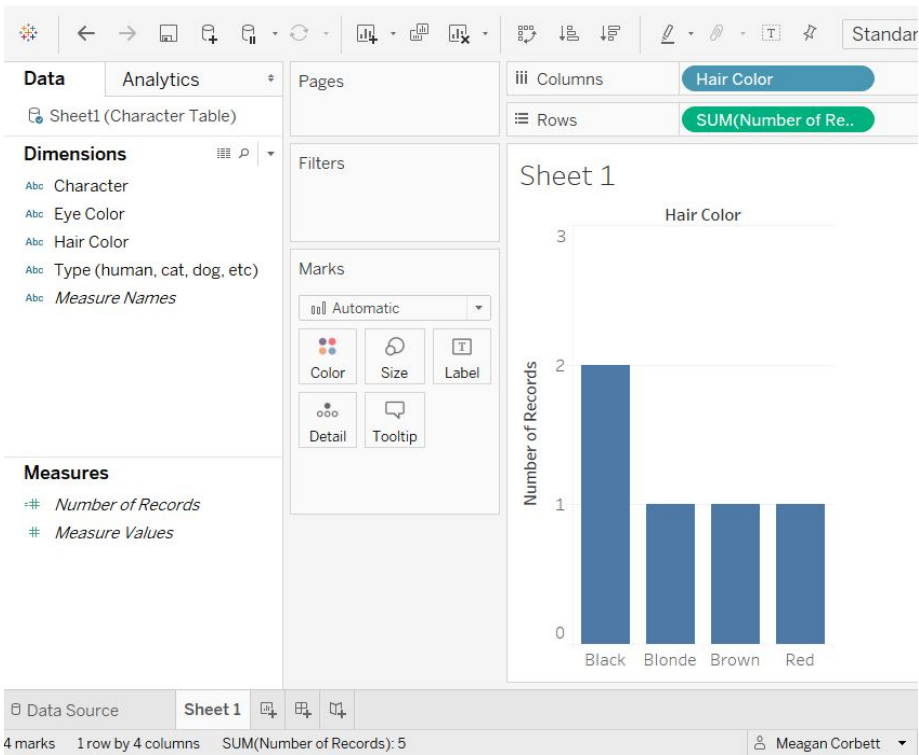
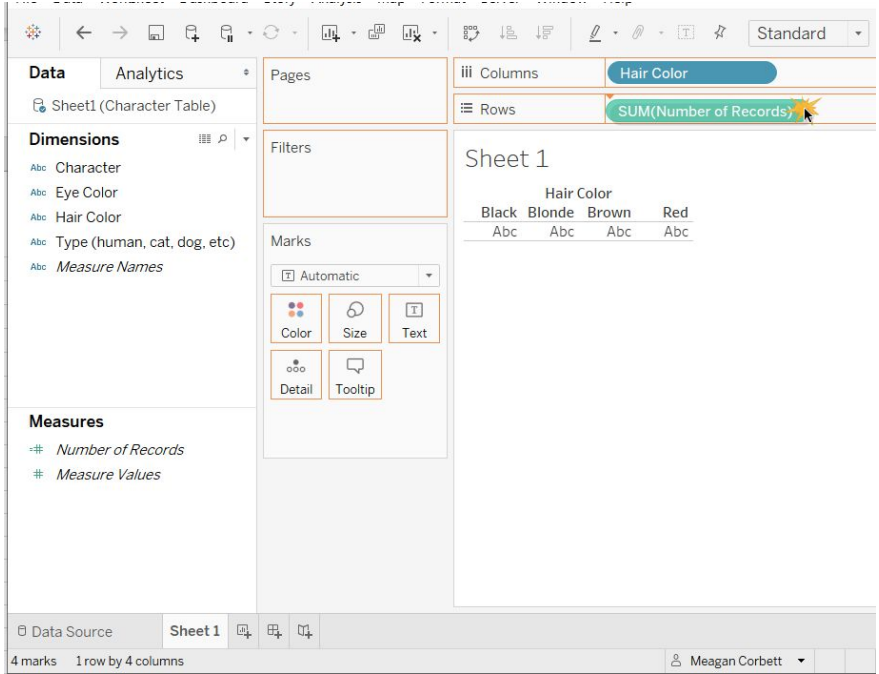
Start by asking the same question: How many characters have brown hair?

c. “How many” means, we want to count the number—this is “Number of Records” in Tableau.

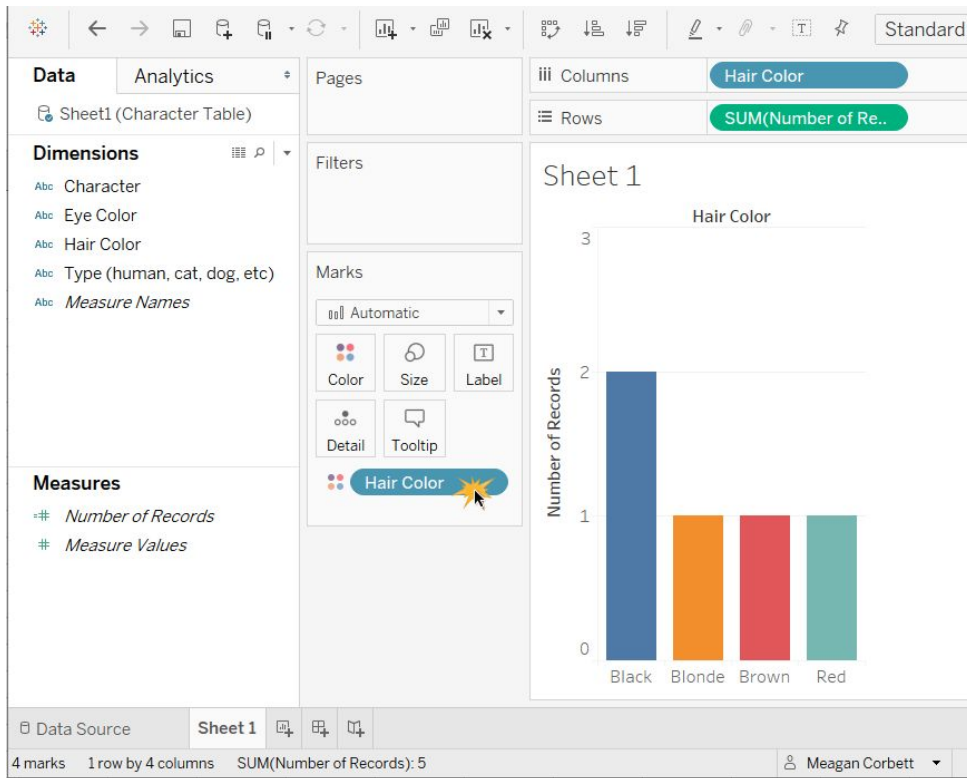
d. “Brown hair” is a type of hair color, so we want to look at “Hair Color.”



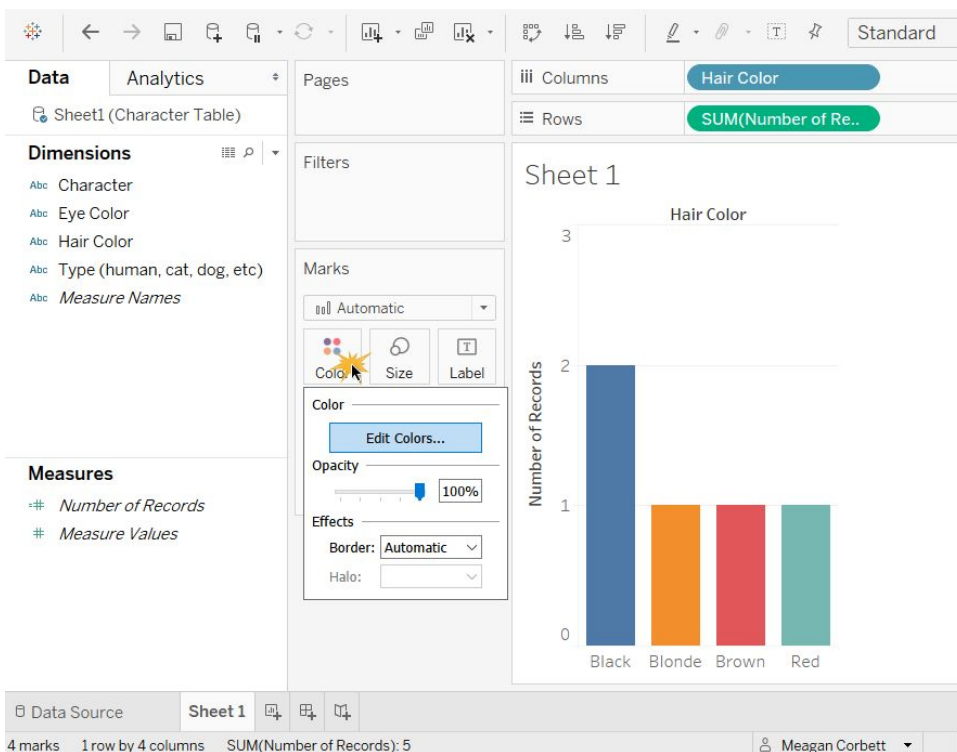
You can drag “Hair Color” and drop to the Columns shelf, and “Number of Records” to the Rows shelf. Now, does this look like the bar chart you drew?

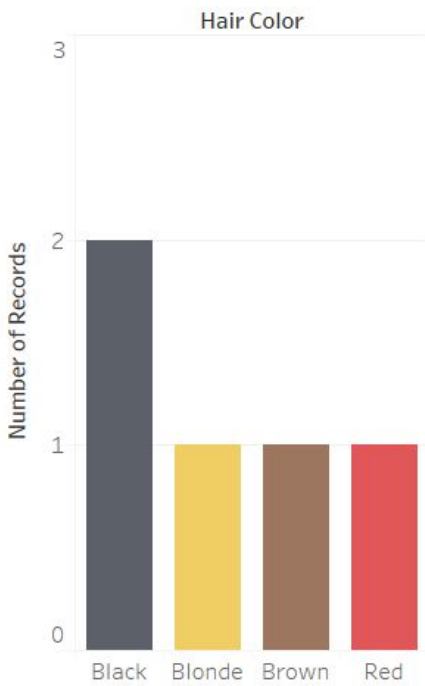
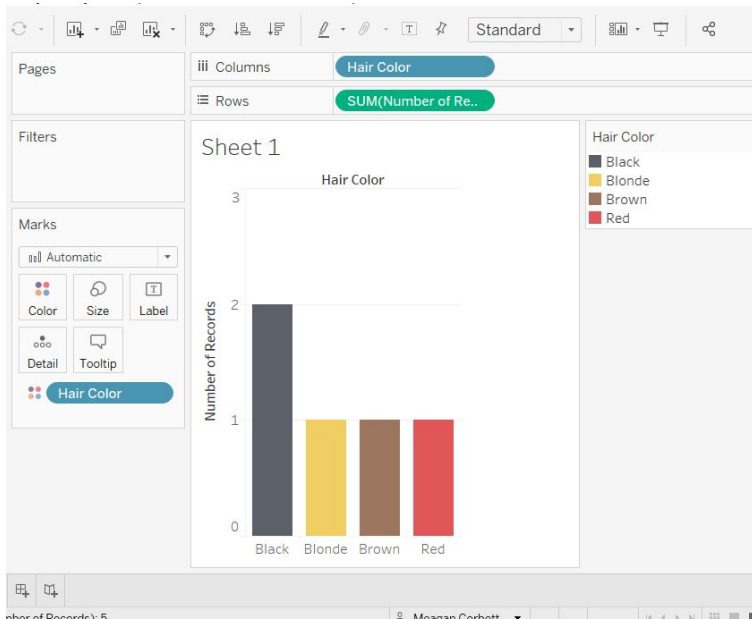


Drag out “Hair Color” from the left-hand data pane, onto the Color button on the “Marks” card.



To change the colors of the bars, select “Colors” on the Marks Card, and “Edit Colors”. Select colors that align with the hair colors.





Study your graph. What is the most common hair color? What other questions can you answer with graphs?

**Ideas for other data you can collect:**

- What other movie or book characters could you add?
- What other brown-haired characters could you add to the data tables and graphs?
- What other characteristics could you explore?

**GREAT JOB!**