**YouTube data – activity questions**

## Part A: Sorting and filtering

**As you sort and filter the data, compare your results with the person next to you!**

1. When you begin this activity, the sheet is sorted by Rank. Select all the columns and instead sort the data alphabetically by channel name.
2. Try sorting the data by each of the categories Videos, Subscribers, Views. Can you work out which category the Rank number is based on?
3. Use filters to display:
	1. Channels that have a Grade of A++
	2. Channels that have a Grade of B
	3. The top ten channels by Rank (**Hint**: your filter condition should look for a rank of less than or equal to 10)
4. Switch to the sheet “Analysing the data” for parts B, C, and D below.

## Part B: New functions

1. Use the COUNTIF function to count how many channels have:
	1. Less than 1000 videos
	2. Exactly 1000 videos
	3. More than 5000 videos

Tip: If the data is sorted according to the column you are analysing, you can verify your answer by counting them yourself! Make sure to select only the columns containing the data, and not the whole sheet.

1. Use the COUNTIF function to count how many channels have:
	1. Less than 45,000,000 (30 million) subscribers
	2. Exactly 45,000,000 subscribers
	3. More than 50,000,000 subscribers
2. Use the COUNTIF function to count how many channels have:
	1. Less than 10,000,000,000 views
	2. Exactly 10,000,000,000 views
	3. More than 20,000,000,000 views
3. Use the AVERAGE function to find the average number of videos, subscribers, and views. Try to format your answers as whole numbers or numbers with one or two decimal places only.
4. In the Check column, use the IF function to display the text “Over 50 million subs!” if the channel has more than 50,000,000 subscribers, and “Too low” otherwise.

## Part C: Revision exercises

1. Use the MAX and MIN functions to find:
	1. The highest number of each of: videos, views, subscribers
	2. The lowest number of each of: videos, views, subscribers

Tip: If the data is sorted according to the column you are analysing, you can easily verify your answer!

1. Use the SUM function to calculate the total number of videos, views, and subscribers among all the channels together.
2. Create a bar chart showing the number of subscribers each channel has.

## Explorer tasks

### Functions

* Investigate the COUNT function and how it is different from COUNTA and COUNTIF.
* Create a document that stores all the functions and formulas you know.

### Charts

* Add more series to your chart so that it also shows number of videos and views.
* Find and try out the ‘stacked’ option on your chart, and see if you can understand it.

This resource is available online at [ncce.io/sprs-5-a4-hd](http://ncce.io/sprs-5-a4-hd). Resources are regularly updated — please check that you are using the latest version.

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