 Modifying data from Google Trends

Background: Generating the data

Gangnam Style was an internet sensation that started to “go viral” in the USA during July 2012 and peaked during September 2012. This can be shown using Google Trends.

Using Google Trends, search for [“Gangnam style”](https://trends.google.com/trends/explore?date=2012-07-14%202014-07-14&geo=US&q=%2Fg%2F1s05sv9bm) in the USA with customised dates starting on 1st July 2012 and finishing on 1st July 2014 (2 years later). Downloading the data provides a table in the form shown below.

| Week | Gangnam Style: (United States) |
| --- | --- |
| 15/07/2012 | 1 |
| 22/07/2012 | 2 |
| 29/07/2012 | 7 |
| 5/08/2012 | 8 |
| 12/08/2012 | 9 |
| 19/08/2012 | 17 |
| 26/08/2012 | 22 |

This data needs to be modified into the form used during the infectious diseases parts of the task. Firstly rename the column headed “Gangnam style: (United States)” as “Weekly Hits, R”; insert two columns between columns 1 and 2, headed “Time, t” and “Total Hits, N”; and add integer values from 0 onwards into the Time column.

| Week | Time, t | Total Hits, N | Weekly Hits, R |
| --- | --- | --- | --- |
| 15/07/2012 | 0 |  | 1 |
| 22/07/2012 | 1 |  | 2 |
| 29/07/2012 | 2 |  | 7 |
| 5/08/2012 | 3 |  | 8 |
| 12/08/2012 | 4 |  | 9 |
| 19/08/2012 | 5 |  | 17 |
| 26/08/2012 | 6 |  | 22 |

Finally, populate the Total Hits column. This is the cumulative total of the Weekly Hits column, i.e. the first row is equal to 1, the second is equal to 1+2, the third is equal to 1+2+7 etc.

| Week | Time, t | Total Hits, N | Weekly Hits, R |
| --- | --- | --- | --- |
| 15/07/2012 | 0 | 1 | 1 |
| 22/07/2012 | 1 | 3 | 2 |
| 29/07/2012 | 2 | 10 | 7 |
| 5/08/2012 | 3 | 18 | 8 |
| 12/08/2012 | 4 | 27 | 9 |
| 19/08/2012 | 5 | 44 | 17 |
| 26/08/2012 | 6 | 66 | 22 |

This data can be copied and pasted into many graphing applications like Geogebra (spreadsheet view) or desmos.