

WS #2 - R

Monday, August 25, 2025

Math 154 - Jo Hardin

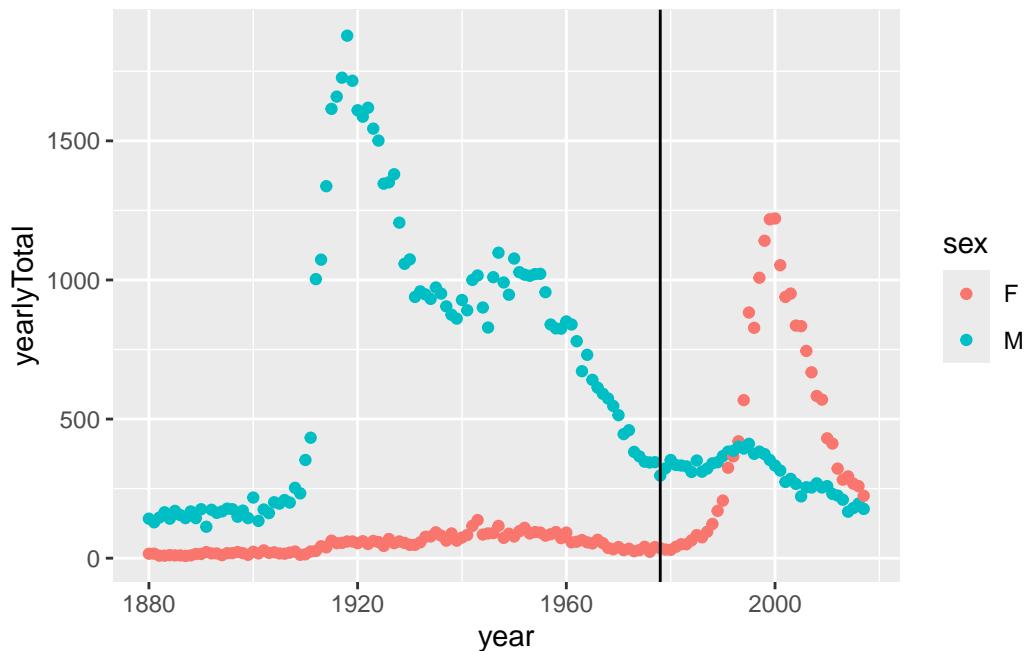
Your Name: _____

Names of people you worked with: _____

Tell your partner(s) the name of your hometown and how your classes are going. Is your schedule set or are you trying to move things around? Tell me your hometown (write it down) and whether or not you are set with your schedule.

Task:

Consider the following R code (you don't need to know the functions to solve the problem.)



```

Sidneys <- babynames |>
  dplyr::filter(name == "Sidney") |>
  dplyr::group_by(year, sex) |>
  dplyr::summarise(yearlyTotal = sum(n))

Sidneys |>
  ggplot2::ggplot(aes(x = year,
                      y = yearlyTotal)) +
  ggplot2::geom_point(aes(color = sex)) +
  ggplot2::geom_vline(xintercept = 1978)

```

The expressions above contain several types of objects as categorized here. Identify the object type for each of the items in the table. That is, assign one of a. through e. to each word.

- a. function
- b. data frame
- c. variable
- d. “named argument”
- e. level / value of the variable
- f. package

| Item | Object Type | Item | Object Type |
|-------------|-------------|------------|-------------|
| babynames | | ggplot2 | |
| name | | n | |
| group_by | | year | |
| sex | | summarise | |
| yearlyTotal | | sum | |
| dplyr | | filter | |
| Sidneys | | ggplot | |
| aes | | x | |
| y | | geom_point | |
| color | | geom_vline | |
| xintercept | | Sidney | |

Solution:

| Item | Object Type | Item | Object Type |
|--------------------------|-------------|-------------------------|-------------|
| <code>babynames</code> | b | <code>ggplot2</code> | f |
| <code>name</code> | c | <code>n</code> | c |
| <code>group_by</code> | a | <code>year</code> | c |
| <code>sex</code> | c | <code>summarize</code> | a |
| <code>yearlyTotal</code> | c | <code>sum</code> | a |
| <code>dplyr</code> | f | <code>filter</code> | a |
| <code>Sidneys</code> | b | <code>ggplot</code> | a |
| <code>aes</code> | a | <code>x</code> | d |
| <code>y</code> | d | <code>geom_point</code> | a |
| <code>color</code> | d | <code>geom_vline</code> | a |
| <code>xintercept</code> | d | <code>Sidney</code> | e |