

Solution: DC Exercises Chapter 3

Instructor - Soumya Mukherjee
Content Credit- Dr. Matthew Beckman and Olivia Beck

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Assigned Exercises:

- DC Ch 3 Exercises: 3.1, 3.2, 3.3, 3.4, 3.5, 3.6

Grading:

Grade as follows:

- [3 points] completion (attempting all exercises)
- 1 point for correct solutions for all questions except 3.3
- 2 points for correct solution of 3.3

Please be as lenient as possible while grading.

Solutions:

Problem 3.1

1. a data frame:

```
Fireplace
```

2. a function:

```
fireplace()
```

3. the name of a named argument:

```
function(x = fireplace)
```

4. a variable:

```
fireplace
```

Problem 3.2

Flawed statement:

```
Result <- %>% filter(BabyNames, name == "Prince")
```

Corrected statement:

```
Result <- BabyNames %>% filter(name == "Prince")
```

- pipe operator %>% can't follow an assignment operator <-
- data table `BabyNames` should come before the pipe rather than as an argument to the filter function

Problem 3.3

Here are the kinds of named objects given: a. function name b. data table name c. variable name d. name of a named argument

Identify what kind of object each of the following name is used for:

1. `BabyNames` - b
2. `filter` - a
3. `name` - c,d
4. `==` - d
5. `group_by` - a
6. `year` - c, d
7. `sex` - c, d
8. `summarise` - a
9. `yearlyTotal` - d
10. `sum` - a, d
11. `count` - d
12. `ggplot` - a
13. `aes` - a, d
14. `x` - c, d
15. `y` - c, d
16. `geom_point` - a
17. `color` - d
18. `geom_vline` - a
19. `xintercept` - d

Problem 3.4

- meaning of `brainwt` variable: weight of an animal brain
- how many cases: 83
- real-world meaning of case: An animal/mammal
- levels of `vore`: {carni, herbi, insecti, omni, NA}

Problem 3.5

- a. SAME
- b. SAME
- c. DIFFERENT. This includes a `mean()` function rather than the `sum()` function shown in the other commands
- d. SAME

Problem 3.6

1. `date()` takes no arguments
2. `date()` returns a string **constant** of the current date and time.