

Advanced Statistics HW3

Due date: October 23, 2018

Exercises 1

How can you tell if an object is a tibble? (Hint: try printing `mtcars`, which is a regular data frame).

Exercises 2

What function would you use to read a file where fields were separated with “|”?

Exercises 3

Identify what is wrong with each of the following inline CSV files. What happens when you run the code?

```
read_csv("a,b\n1,2,3\n4,5,6")
read_csv("a,b,c\n1,2\n1,2,3,4")
read_csv("a,b\n\"1")
read_csv("a,b\n1,2\na,b")
read_csv("a;b\n1;3")
```

Exercises 4

Generate the correct format string to parse each of the following dates and times:

```
d1 <- "January 1, 2010"
d2 <- "2015-Mar-07"
d3 <- "06-Jun-2017"
d4 <- c("August 19 (2015)", "July 1 (2015)")
d5 <- "12/30/14" # Dec 30, 2014
t1 <- "1705"
t2 <- "11:15:10.12 PM"
```

Exercises 5

Why does spreading this tibble fail? How could you add a new column to fix the problem?

```
people <- tribble(
  ~name,      ~key,      ~value,
  #-----|-----|-----
  "Phillip Woods", "age",      45,
  "Phillip Woods", "height",  186,
  "Phillip Woods", "age",      50,
  "Jessica Cordero", "age",      37,
  "Jessica Cordero", "height",  156
)
```

Exercises 6

Tidy the simple tibble below. Do you need to spread or gather it? What are the variables?

```
preg <- tribble(  
  ~pregnant, ~male, ~female,  
  "yes",      NA,    10,  
  "no",       20,    12  
)
```