Comprehension Check due May 27, 2021 22:59 +03

Import raw Brexit referendum polling data from Wikipedia:

```
library(rvest)
library(tidyverse)
library(stringr)
url <- "https://en.wikipedia.org/w/index.php?title=Opinion_polling_for_the_United_Kir
tab <- read_html(url) %>% html_nodes("table")
polls <- tab[[5]] %>% html_table(fill = TRUE)
```

You will use a variety of string processing techniques learned in this section to reformat these data.

Question 5

1/1 point (graded)

Some rows in this table do not contain polls. You can identify these by the lack of the percent sign (%) in the Remain column.

Update `polls` by changing the column names to `c("dates", "remain", "leave", "undecided", "lead", "samplesize", "pollster", "poll_type", "notes")` and only keeping rows that have a percent sign (%) in the `remain` column.

How many rows remain in the `polls` data frame?

129 ✔ **Answer:** 129

129

Answer code

```
          names(polls) <- c("dates", "remain", "leave", "undecided", "lead", "samplesize", "pollster", "p
polls <- polls[str_detect(polls$remain, "%"), -9]
nrow(polls)
```

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Answers are displayed within the problem

Question 6

3/3 points (graded)

The `remain` and `leave` columns are both given in the format "48.1%": percentages out of 100% with a percent symbol.

Which of these commands converts the `remain` vector to a proportion between 0 and 1?

Check all correct answers.

- [ ] `as.numeric(str_remove(polls$remain, "%"))`

- [ ] `as.numeric(polls$remain)/100`
- [ ] `parse_number(polls$remain)`
- [ ] `str_remove(polls$remain, "%")/100`
- [x] `as.numeric(str_replace(polls$remain, "%", ""))/100`
- [x] `parse_number(polls$remain)/100`

✔

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Question 7

3/3 points (graded)

The `undecided` column has some "N/A" values. These "N/A"s are only present when the `remain` and `leave` columns total 100%, so they should actually be zeros.

Use a function from **stringr** to convert "N/A" in the `undecided` column to 0. The format of your command should be `function_name(polls$undecided, "arg1", "arg2")`.

What function replaces `function_name`?

str_replace ✔ **Answer:** str_replace **or** str_replace_all **or** str_replace() **or** str_replace_all()

What argument replaces `arg1`?
Omit the quotation marks.

N/A ✔ **Answer:** N/A

What argument replaces `arg2`?
Omit the quotation marks.

0 ✔ **Answer:** 0

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Answers are displayed within the problem

Question 8

3.5/3.5 points (graded)

The `dates` column contains the range of dates over which the poll was conducted. The format is "8-10 Jan" where the poll had a start date of 2016-01-08 and end date of 2016-01-10. Some polls go across month boundaries (16 May-12 June).

The end date of the poll will always be one or two digits, followed by a space, followed by the month as one or more letters (either capital or lowercase). In these data, all month abbreviations or names have 3, 4 or 5 letters.

Write a regular expression to extract the end day and month from `dates`. Insert it into the skeleton code below:

```
      temp <- str_extract_all(polls$dates, _____)
end_date <- sapply(temp, function(x) x[length(x)]) # take last element (handles polls that cross month bou
```

Which of the following regular expressions correctly extracts the end day and month when inserted into the blank in the code above?

Check all correct answers.

- [ ] `"\\d?\\s[a-zA-Z]?"`
- [x] `"\\d+\\s[a-zA-Z]+"`
- [ ] `"\\d+\\s[A-Z]+"`
- [x] `"[0-9]+\\s[a-zA-Z]+"`
- [x] `"\\d{1,2}\\s[a-zA-Z]+"`
- [ ] `"\\d{1,2}[a-zA-Z]+"`
- [x] `"\\d+\\s[a-zA-Z]{3,5}"`

✔

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ℹ Answers are displayed within the problem