# От вектора к текстам в R

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*24 сентября 2017 г*

## Работа со строками

Загрузим библиотеки

```r
library(stringr)
library(tidyverse)
library(tidyr)
library(readr)
library(stringi)
library(stringr)
```

## Чет-нечет

Напишите функцию `is.odd()`, которая возвращает значение TRUE, если число символов в строке нечетно, FALSE, если число символов в строке четно.

```r
is.odd <- function(str) {
  return(nchar(str) %% 2 != 0)
}

is.odd(c("odd", "even", ""))
```

```
## [1]  TRUE FALSE FALSE
```

## Искусственные данные по средней продолжительности сна

В данных по продолжительности сна (1.1_sleep_hours.csv) две переменных: код испытуемого и среднее время сна. Попробуйте сделать следующий график:

```r
sleep.data <- read_csv('data/1.1_sleep_hours.csv')
sleep.data %>%
  separate(code, c('sex', 'year'), sep = '__') %>%
  ggplot(aes(sleep_hours, fill = sex)) +
  geom_density(alpha = 1/3) +
  ggtitle('                  ') +
  xlab('          ') +
  ylab('     ')
```

```
## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##                 0x7f

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##                 0x80

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##                 0x80
```

```
## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##                  0x7f

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##          0xe1

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##          0xf0

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##          0xae

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##          0xed

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##                  0x7f

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##          0xdf

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##          0xa4

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##          0x3

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##          0x9e

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##          0xfe

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##          0x7f

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##                  0x7f

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##                  0x7f

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##                  0x80

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##                  0x7f

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##          0xb7

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##          0xd0

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##          0xd2

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##          0xd8

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##          0xe1
```

```
## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##          0xd8

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##          0xdc

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##          0xde

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##          0xf7

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##          0xec

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##          0x3

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##          0x9e

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##          0xfe

## Warning in grid.Call(L_stringMetric, as.graphicsAnnot(x$label)):
##          0x7f

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##              0xdf

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##              0x2

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##              0x9e

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##              0xfe

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##              0x7f

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##              0xdf

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##              0x2

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##              0x9e

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##              0xfe

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##              0x7f

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##              0xb7

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##              0xd0
```

```
## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xd2

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xd8

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xe1

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xd8

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xdc

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xde

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0x2

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0x9e

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xfe

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0x7f

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xb7

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xd0

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xd2

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xd8

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xe1

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xd8

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xdc

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xde

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xa7

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0x2

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0x9e
```

```
## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xfe

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0x7f

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xe1

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xf0

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xae

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xed

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xe1

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xf0

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xae

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xed

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xdf

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0x2

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0x9e

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xfe

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0x7f

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xdf

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0x2

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0x9e

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xfe

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0x7f

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xdf
```

```
## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xb7

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xd0

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xd2

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xd8

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xe1

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xd8

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xdc

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xde

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xf7

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0x2

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0x9e

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xfe

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0x7f

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xb7

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xd0

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xd2

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xd8

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xe1

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xd8

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xdc

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xde
```

```
## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                 0x2

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                 0x9e

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                 0xfe

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                 0x7f

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                 0xb7

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                 0xd0

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                 0xd2

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                 0xd8

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                 0xe1

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                 0xd8

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                 0xdc

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                 0xde

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                 0xe1

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                 0xf0

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                 0xae

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                 0xed

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                 0xe1

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                 0xf0

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                 0xae

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                 0xed

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                 0xe1
```

```
## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xf0

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xae

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xed

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xe1

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xf0

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xae

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xed

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xe1

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xf0

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xae

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xed

## Warning in grid.Call.graphics(L_text, as.graphicsAnnot(x$label), x$x, x
## $y, :                0xe1

## Warning in grid.Call.graphics(L_text, as.graphicsAnnot(x$label), x$x, x
## $y, :                0xf0

## Warning in grid.Call.graphics(L_text, as.graphicsAnnot(x$label), x$x, x
## $y, :                0xae

## Warning in grid.Call.graphics(L_text, as.graphicsAnnot(x$label), x$x, x
## $y, :                0xed

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xdf

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0x2

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0x9e

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xfe

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0x7f

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xdf
```

```
## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##               0x2

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##               0x9e

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##               0xfe

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##               0x7f

## Warning in grid.Call.graphics(L_text, as.graphicsAnnot(x$label), x$x, x
## $y, :               0xdf

## Warning in grid.Call.graphics(L_text, as.graphicsAnnot(x$label), x$x, x
## $y, :               0x3

## Warning in grid.Call.graphics(L_text, as.graphicsAnnot(x$label), x$x, x
## $y, :               0x9e

## Warning in grid.Call.graphics(L_text, as.graphicsAnnot(x$label), x$x, x
## $y, :               0xfe

## Warning in grid.Call.graphics(L_text, as.graphicsAnnot(x$label), x$x, x
## $y, :               0x7f

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##               0xb7

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##               0xd0

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##               0xd2

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##               0xd8

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##               0xe1

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##               0xd8

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##               0xdc

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##               0xde

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##               0x2

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##               0x9e

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##               0xfe

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##               0x7f
```

```
## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xb7

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xd0

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xd2

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xd8

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xe1

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xd8

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xdc

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xde

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xe7

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0x2

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0x9e

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0xfe

## Warning in grid.Call(L_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
##                0x7f

## Warning in grid.Call.graphics(L_text, as.graphicsAnnot(x$label), x$x, x
## $y, :                0xb7

## Warning in grid.Call.graphics(L_text, as.graphicsAnnot(x$label), x$x, x
## $y, :                0xd0

## Warning in grid.Call.graphics(L_text, as.graphicsAnnot(x$label), x$x, x
## $y, :                0xd2

## Warning in grid.Call.graphics(L_text, as.graphicsAnnot(x$label), x$x, x
## $y, :                0xd8

## Warning in grid.Call.graphics(L_text, as.graphicsAnnot(x$label), x$x, x
## $y, :                0xe1

## Warning in grid.Call.graphics(L_text, as.graphicsAnnot(x$label), x$x, x
## $y, :                0xd8

## Warning in grid.Call.graphics(L_text, as.graphicsAnnot(x$label), x$x, x
## $y, :                0xdc

## Warning in grid.Call.graphics(L_text, as.graphicsAnnot(x$label), x$x, x
## $y, :                0xde
```

```
## Warning in grid.Call.graphics(L_text, as.graphicsAnnot(x$label), x$x, x
## $y, :                0x87

## Warning in grid.Call.graphics(L_text, as.graphicsAnnot(x$label), x$x, x
## $y, :                0x3

## Warning in grid.Call.graphics(L_text, as.graphicsAnnot(x$label), x$x, x
## $y, :                0x9e

## Warning in grid.Call.graphics(L_text, as.graphicsAnnot(x$label), x$x, x
## $y, :                0xfe

## Warning in grid.Call.graphics(L_text, as.graphicsAnnot(x$label), x$x, x
## $y, :                0x7f
```
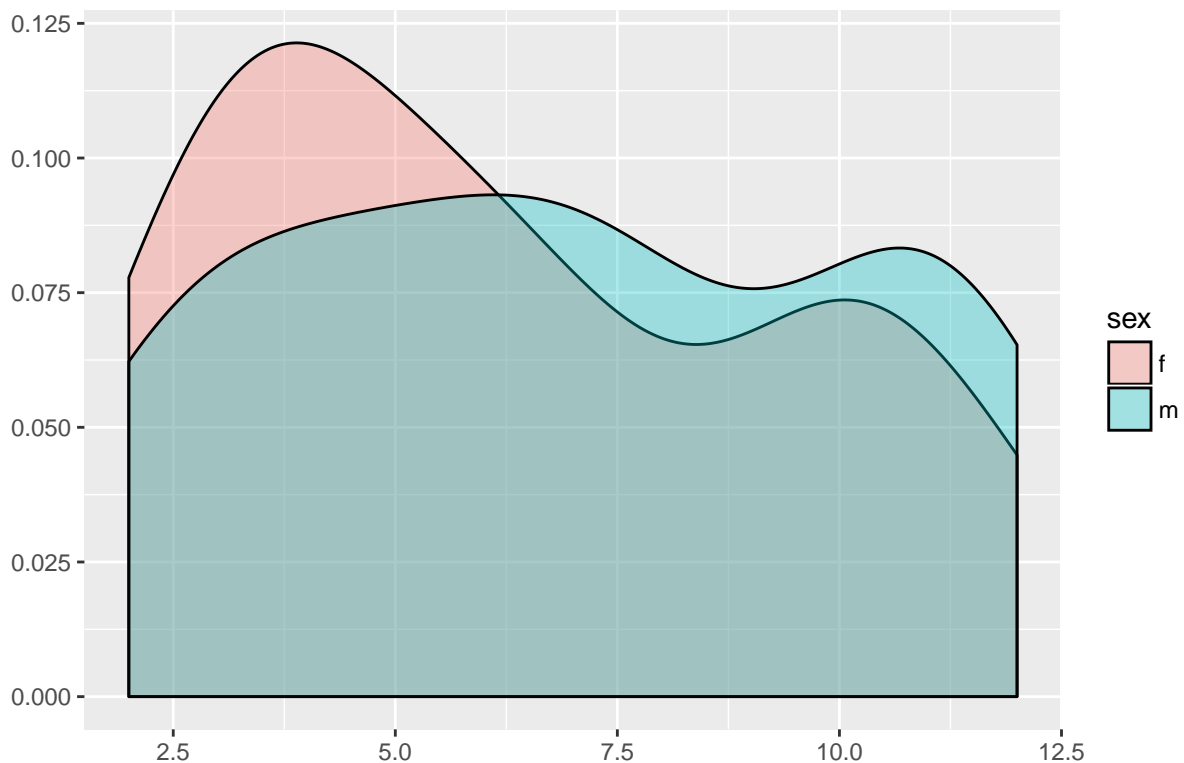


### Алфавитный порядок

Как было сказано выше, "алфавитный" порядок разный в разных локалях. Напишите функцию `ordering_in_locales`,
которая на вход принимает два символа, а возвращает таблицу с информацией о том, в скольких локалях порядок
соответствует поданному в функцию, а в скольких порядок обратный:

```
ordering_in_locales <- function(ch1, ch2) {
  str <- c(ch1, ch2)
  loc <- stri_locale_list()
  return(table(sapply(loc, function(x) {paste(stringr::str_sort(str, locale = x), collapse = '_')})))
}

ordering_in_locales('i', '')
```

```
## 
## _i i_
## 29 668
```

**Функция для проверки полиндромности**

Напишите функцию is.palindrome, которая будет проверять, является ли слово полиндромом.

```
is.palindrome <- function(str) {
  #return(str == stri_reverse(str))
  return(str == paste(rev(str_split(str, pattern = '', simplify = T)), collapse = ''))
}

is.palindrome('    ')
```

```
## [1] TRUE
```

```
is.palindrome('   ')
```

```
## [1] FALSE
```

**Функция для зеркального отражения размера букв**

Напишите функцию mirror_case(), которая в строке все большие буквы заменяет на маленькие, а все маленькие – на большие.

```
mirror_case <- function(str) {
  str <- str_split(str, pattern = '', simplify = T)
  up <- grepl('[[:upper:]]', str)
  low <- grepl('[[:lower:]]', str)
  str[up] <- str_to_lower(str[up])
  str[low] <- str_to_upper(str[low])
  return(paste(str, collapse = ''))
}

mirror_case('              ')
```

```
## [1] "              "
```