

# Getting help with R

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August 30th, 2017

# Looking for answers

# Within R

```
# help with a specific function
?function_name

# for when you can't quite remember the function name
??something_like_function_name

# use auto-completion in RStudio to see what functions
# are in a package
?package::

# find vignettes for installed (or specific) packages
browseVignettes()
browseVignettes("dplyr")
```

Google



**Jesse Maegan**

@kierisi

Following



My **#rstats** learning path:

1. Install R
2. Install RStudio
3. Google "How do I [THING I WANT TO DO] in R?"

Repeat step 3 ad infinitum.

2:19 PM - 18 Aug 2017

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gather



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## [Gather columns into key-value pairs. — gather • tidyr](#)

[tidyr.tidyverse.org/reference/gather.html](https://tidyr.tidyverse.org/reference/gather.html)

**Gather** takes multiple columns and collapses into key-value pairs, duplicating all other columns as needed. You use **gather()** when you notice that you have ...

## [Introducing tidyr | RStudio Blog](#)

<https://blog.rstudio.com/2014/07/22/introducing-tidyr/>

Jul 22, 2014 ... **gather()** takes multiple columns, and gathers them into key-value pairs: it makes "wide" data longer. Other names for **gather** include melt ...

## [gather function | R Documentation](#)

<https://www.rdocumentation.org/packages/tidyr/versions/0.../gather>

**Gather** takes multiple columns and collapses into key-value pairs, duplicating all other columns as needed. You use **gather()** when you notice that you have ...

Labeled [Packages](#) [Support](#)

## [Easily Tidy Data with 'spread\(\)' and 'gather\(\)' Functions • tidyr](#)

[tidyr.tidyverse.org/](https://tidyr.tidyverse.org/)



Overview. The goal of tidyr is to help you create tidy data. Tidy data is data where: Each variable is in a column. Each observation is a row. Each value is a cell.

## [Package 'tidyr'](#)

<https://cran.r-project.org/web/packages/tidyr/tidyr.pdf>

File Format: PDF/Adobe Acrobat

May 15, 2017 ... Title Easily Tidy Data with 'spread()' and '**gather()**' Functions. Version 0.6.3. Description An evolution of 'reshape2'. It's designed specifically for ...

Labeled [Packages](#)



Search

Ask Question

rotate x axis labels [ggplot2] [r]

search

54 results

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372

votes

4

answers

Q: Rotating and spacing axis labels in ggplot2

I have a plot where the **x-axis** is a factor whose **labels** are long. While probably not an ideal visualization, for now I'd like to simply **rotate** these **labels** to be vertical. I've figured this part ... out with the code below, but as you can see, the **labels** aren't totally visible. `data(diamonds) diamonds$cut <- paste("Super Dee-Duper",as.character(diamonds$cut)) q <- qplot(cut,carat,data=diamonds,geom="boxplot") q + opts(axis.text.x=theme_text(angle=-90)) ...`

r ggplot2 labels

asked Aug 25 '09 by Christopher DuBois

1

vote

1

answer

Q: Change in y axis label alignment when rotating x axis text in ggplot2

So, I've noticed when I **rotate** the text for the **x-axis** in my plots, the positioning of the **y axis label** relative to the graph changes a lot. It appears that it's centered position relative ... ("Super Dee-Duper",as.character(diamonds\$cut)) `q <- qplot(cut,carat,data=diamonds,geom="boxplot") q + opts(axis.text.x=theme_text(angle=-90))` alt text <http://i53.tinypic.com/2h3q2q8.png> The **label** carat is scrunched down between the 1 and 2. It's odd. Is there anyway to stop this behavior? Or fix it? Thanks! ...

r ggplot2

asked Feb 17 '12 by jebymnes

0

votes

1

answer

Q: Place x axis labels on the inside of rotated graph ggplot2 r

I have created a plot in **ggplot2** and was wondering if there is any way in which to get the **x axis LABELS** to be placed on the inside of the plot as it would tidy it up a lot and I can't work out where ... this command would be. Code and plot below, any help greatly appreciated! Thanks! `ggplot(gen, aes(Genera, y = Depth.occurred)) + geom_boxplot() + scale_x_discrete(position = "top") + labs(x ...`

r plot ggplot2

asked Feb 27 by JT\_3KSC

1

vote

2

answers

Q: Rotation of labels to follow x-axis in ggplot2, polar projection?

How might the angle of **x-axis labels** follow the same angle as the outer **x-axis** using the `coord_polar` projection in ggplot? This is similar to **rotate x-axis** text in **ggplot2** when using `coord_polar ...` `,-22),90,c(3:1)*c(22,22.3,14))`. It would also be okay for the **x-axis labels** to **rotate** in the same direction all the way around. If all else fails, I might give up on rotating the **labels** and just add ...

r ggplot2 axis-labels polar-coordinates

asked Oct 17 '13 by proge

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answers	answers:3 (3+) answers:0 (none)
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results found containing **rotate x axis labels**



# Searching online

- > In Google, include "r" and package name in your search
- > Use [rseek.org](https://rseek.org) to search R documentation, discussion forums, blogs
- > If trying to get help with an error, include the entire error message
- > Use tags in [StackOverflow](https://stackoverflow.com)
  - + rotate x axis labels [ggplot2] [r]

NEVER HAVE I FELT SO  
CLOSE TO ANOTHER SOUL

AND YET SO HELPLESSLY ALONE

AS WHEN I GOOGLE AN ERROR

AND THERE'S ONE RESULT

A THREAD BY SOMEONE  
WITH THE SAME PROBLEM

AND NO ANSWER

LAST POSTED TO IN 2003

WHO WERE YOU,  
DENVERCODER9?

WHAT DID YOU SEE?!



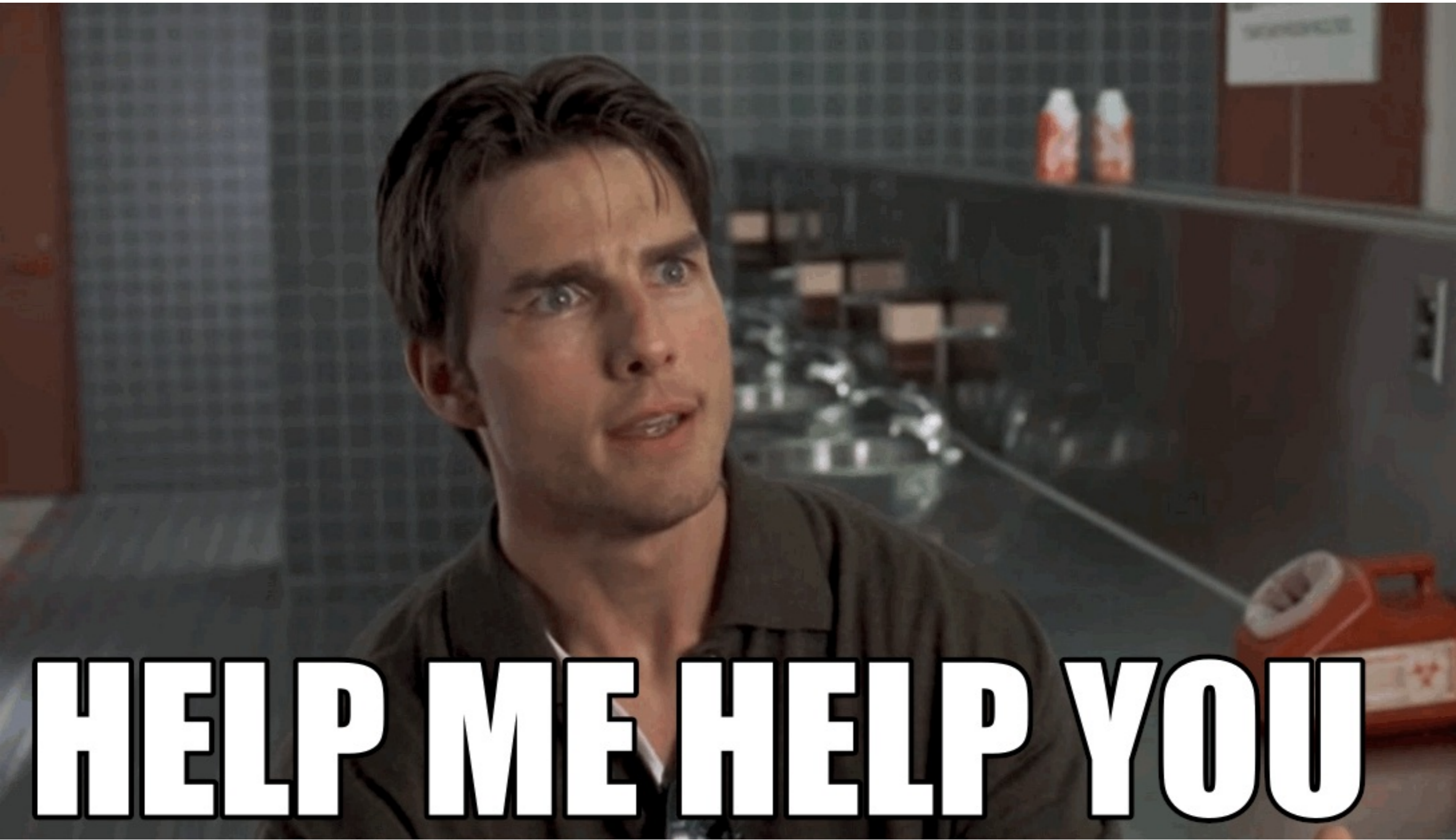
# Digging deeper

- > Issues on GitHub page
  - + Check if it's a known problem awaiting a fix
  - + see [this](#) and [this](#) for example
- > Source code
  - + Search for the package on GitHub
  - + Download package source from CRAN (.tar.gz file)
  - + `function_name`
  - + Can you identify exactly what's causing the problem?

Always have a really good stab  
at finding an answer before  
asking a question

# xaringan example

# Asking questions



**HELP ME HELP YOU**

# What makes a good question?

- > **reproducible**

- + This means that you need to capture everything, i.e. include any `library()` calls at the top and create all necessary objects.

- > **minimal**

- + Strip away everything that is not directly related to your problem. This usually involves creating a much smaller and simpler R object than the one you're facing in real life or even using built-in data.



# What makes a good question?

- > **verifiable**
  - + Actually reproduces the problem!
- > Explain steps (using comments or rmarkdown)
- > Include error messages, and possibly output of `sessionInfo()`
- > Include what you've tried to fix it

Can be a lot of effort, but  
often the process of  
coming up with a good  
reproducible example  
(reprex) allows you to  
identify (and possibly  
solve) the problem

# The reprex package

```
install.packages("reprex")  
  
# coming soon as part of the tidyverse  
install.packages("tidyverse")
```

# Basic reprex steps

- > write some R code
- > copy it
- > run `reprex()`
- > paste

# reprex() demo

N.B. for the addin, need RStudio 1.1

# minimal dataset

- > if possible, use a built-in, familiar dataset (e.g. iris, mtcars, [others](#))
- > use `dput()`

```
set.seed(1)
some_numbers <- sample(1:10)
dput(some_numbers)
## c(3L, 4L, 5L, 7L, 2L, 8L, 9L, 6L, 10L, 1L)
```

Then copy and paste the above output into the reproducible example:

```
my_data <- c(3L, 4L, 5L, 7L, 2L, 8L, 9L, 6L, 10L, 1L)
my_data
## [1] 3 4 5 7 2 8 9 6 10 1
```

Also works with data frames.

Need to send this to the console in order to be able to copy and paste!

```
library(dplyr)
```

```
mtcars_small <- mtcars %>%
```

```
  select(1:7) %>%
```

```
  head()
```

```
dput(mtcars_small)
```

```
## structure(list(mpg = c(21, 21, 22.8, 21.4, 18.7, 18.1), cyl =  
## 6, 4, 6, 8, 6), disp = c(160, 160, 108, 258, 360, 225), hp = c(  
## 110, 93, 110, 175, 105), drat = c(3.9, 3.9, 3.85, 3.08, 3.15,  
## 2.76), wt = c(2.62, 2.875, 2.32, 3.215, 3.44, 3.46), qsec = c(  
## 17.02, 18.61, 19.44, 17.02, 20.22)), .Names = c("mpg", "cyl",  
## "disp", "hp", "drat", "wt", "qsec"), row.names = c("Mazda RX4",  
## "Mazda RX4 Wag", "Datsun 710", "Hornet 4 Drive", "Hornet Sport  
## "Valiant"), class = "data.frame")
```

```
mtcars2 <- structure(list(mpg = c(21, 21, 22.8, 21.4, 18.7, 18.1),
  cyl = c(6, 4, 6, 8, 6), disp = c(160, 160, 108, 258, 360, 225), hp = c(110,
  93, 110, 175, 105), drat = c(3.9, 3.9, 3.85, 3.08, 3.15,
  2.76), wt = c(2.62, 2.875, 2.32, 3.215, 3.44, 3.46), qsec = c(16.46,
  17.02, 18.61, 19.44, 17.02, 20.22)), .Names = c("mpg", "cyl",
  "disp", "hp", "drat", "wt", "qsec"), row.names = c("Mazda RX4",
  "Mazda RX4 Wag", "Datsun 710", "Hornet 4 Drive", "Hornet Sportabout",
  "Valiant"), class = "data.frame")
```

mtcars2

```
##           mpg  cyl  disp  hp  drat    wt  qsec
## Mazda RX4    21.0   6   160  110  3.90  2.620  16.46
## Mazda RX4 Wag 21.0   6   160  110  3.90  2.875  17.02
## Datsun 710    22.8   4   108   93  3.85  2.320  18.61
## Hornet 4 Drive 21.4   6   258  110  3.08  3.215  19.44
## Hornet Sportabout 18.7   8   360  175  3.15  3.440  17.02
## Valiant      18.1   6   225  105  2.76  3.460  20.22
```



# Where to ask

- > mailing lists
  - + There are 5 main [R mailing lists](#) and 22 special interest group lists
  - + [ggplot2](#)
  - + [manipulatr](#) for tidyverse data manipulation queries
- > StackOverflow (include tags)
- > GitHub issues (if you're pretty sure you've uncovered a bug)
- > Twitter with [#rstats](#) ([#tidyverse](#) also popular, if applicable)

# dplyrExtras example

# vignette example

# Helping others

- > Answer questions on StackOverflow [r] and twitter (#rstats)
- > File issues



**Hadley Wickham**  @hadleywickham · 13h



Replying to [@hadleywickham](#)

Goal of job is to help catalyse community to contribute to the tidyverse & to make tidyverse warm & welcoming environment for newcomers

**Hadley Wickham**  @hadleywickham

Excited to announce that I'm hiring a developer advocate for my team:  
[hire.withgoogle.com/public/jobs/rs...](https://hire.withgoogle.com/public/jobs/rs...) #rstats #tidyverse



1 more reply

- Steward tidyverse GitHub issues, helping contributors create [reprexes](#) and understand the process while providing a warm and friendly contact point.
- Help out with tidyverse pull requests by educating submitters about the process, helping patches follow the tidyverse style guidelines, and providing advice on git woes.
- Develop tidyverse-wide processes to ensure that we have concrete, clear, consistent workflows. You'll document these process by writing [contributing.md](#) files and blog posts.
- Where time allows, proactively support users of the tidyverse (particularly the newest), monitoring tidyverse tags on Stack Overflow, twitter, and the tidyverse forums. You won't be expected to answer every problem but you can always help make a better reprex and point people in the right direction.

# Resources 1

- > StackOverflow guides and question on what makes a good question

<https://stackoverflow.com/help/mcve>

<https://stackoverflow.com/help/how-to-ask>

<https://stackoverflow.com/questions/5963269/how-to-make-a-great-r-reproducible-example>

# Resources 2

- > reprex package on tidyverse site

<http://reprex.tidyverse.org>

- > reprex package on GitHub

<https://github.com/tidyverse/reprex>



# Resources 3

- > tidyverse guide to getting help

<http://www.tidyverse.org/help>

- > tidyverse guide to contributing

<http://www.tidyverse.org/contribute>

- > Excellent blogpost (with gifs!)

<http://www.njtierney.com/post/2017/01/11/magic-reprex>

# Resources 4

> Common errors in R

<https://github.com/noamross/zero-dependency-problems/blob/master/misc/stack-overflow-common-r-errors.md>

tl; dr: Most errors in R are due to looking for something that isn't there.

Thank you!

Any questions?

I'd love to hear from you!

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