

# How can I change the X-axis labels in ggplot2?

Authored by  
**stats writer**

June 27, 2024

## RECOMMENDED CITATION

stats writer (2024). *How can I change the X-axis labels in ggplot2?*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=155173>

"Changing the X-axis labels in ggplot2 is a simple and effective way to customize the visual representation of data. By utilizing the 'scale\_x\_discrete' function, users can easily modify the labels on the X-axis to better reflect the data being presented. This can be done by specifying the desired labels as a vector within the function, or by using the 'labels' parameter to assign custom labels to specific data points. With this feature, users have the flexibility to adjust the X-axis labels according to their specific needs, creating a more informative and visually appealing graph."

## Change X-Axis Labels in ggplot2

You can use the `scale_x_discrete()` function to change the x-axis labels on a plot in ggplot2:

```
p + scale_x_discrete(labels=c('label1', 'label2', 'label3', ...))
```

The following example shows how to use this syntax in practice.

Example: Change X-Axis Labels in ggplot2

Suppose we have the following data frame in R that shows the points scored by various basketball teams:

```
#create data frame
```

```
df <- data.frame(team=c('Mavs', 'Heat', 'Nets', 'Lakers'),  
points=c(100, 122, 104, 109))
```

```
#view data frame
```

**df**

**team points**

**1 Mavs 100**

**2 Heat 122**

**3 Nets 104**

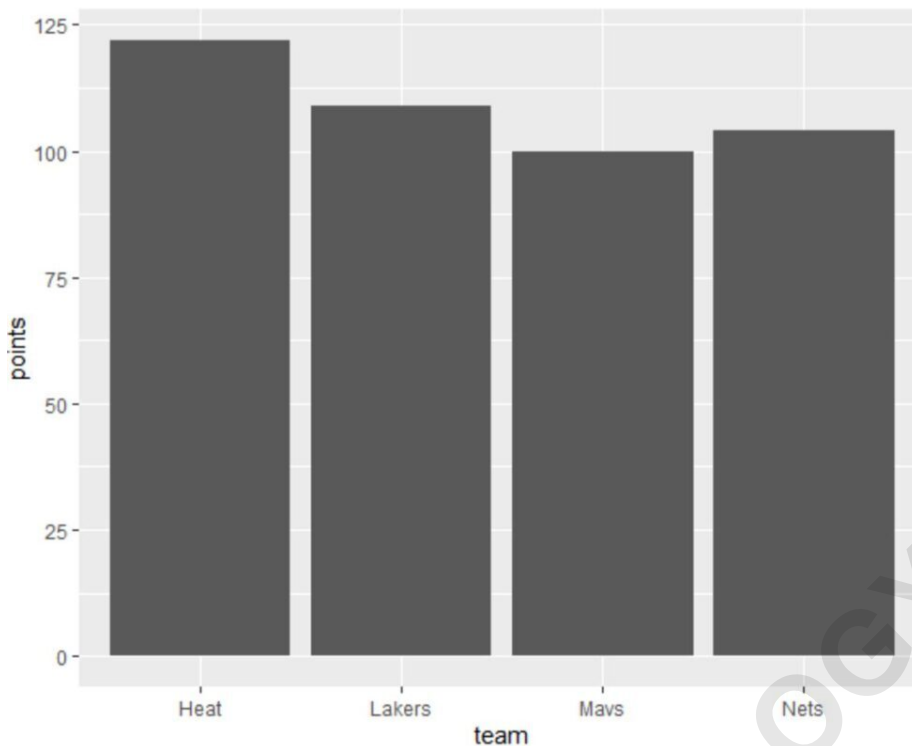
**4 Lakers 109**

If we create a bar plot to visualize the points scored by each team, ggplot2 will automatically create labels to place on the x-axis:

```
library(ggplot2)
```

```
#create bar plot
```

```
ggplot(df, aes(x=team, y=points)) +  
geom_col()
```



To change the x-axis labels to something different, we can use the `scale_x_discrete()` function:

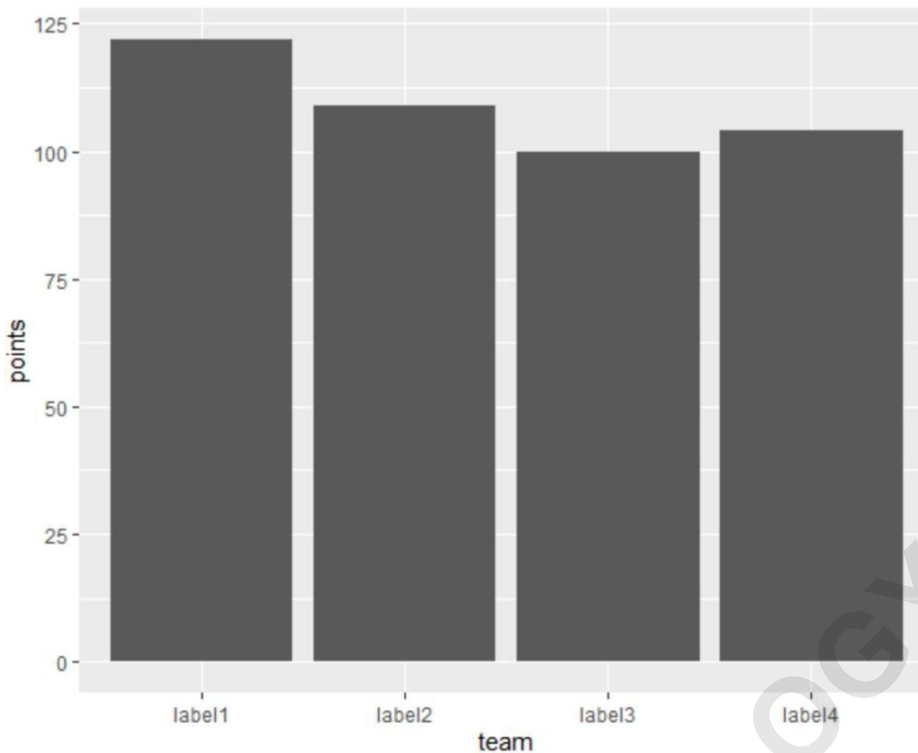
```
library(ggplot2)
```

```
#create bar plot with specific axis order
```

```
ggplot(df, aes(x=team, y=points)) +
```

```
geom_col() +
```

```
scale_x_discrete(labels=c('label1', 'label2', 'label3',  
'label4'))
```



The x-axis labels now match the labels that we specified using the `scale_x_discrete()` function.

You can also specify the labels in a vector outside of the `scale_discrete()` function if you'd like:

```
library(ggplot2)
```

```
#specify labels for plot
```

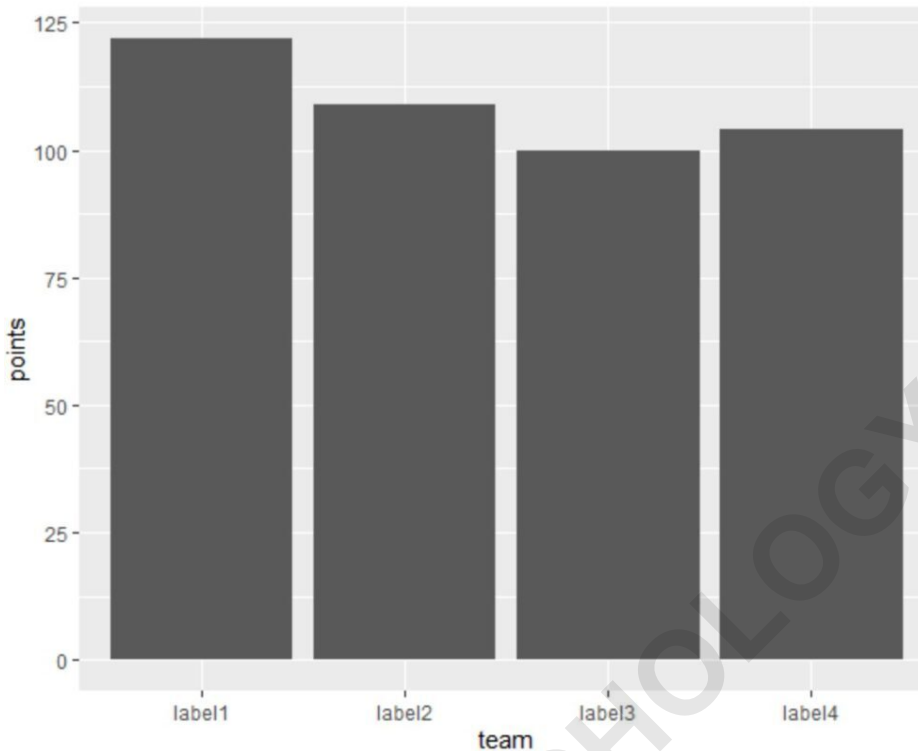
```
my_labels <- c('label1', 'label2', 'label3', 'label4')
```

```
#create bar plot with specific axis order
```

```
ggplot(df, aes(x=team, y=points)) +
```

```
geom_col() +
```

## `scale_x_discrete(labels=my_labels)`



**This matches the previous plot.**

**The following tutorials explain how to perform other common tasks in ggplot2:**