

# How can I order items on the x-axis in ggplot2?

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## RECOMMENDED CITATION

stats writer (2024). *How can I order items on the x-axis in ggplot2?*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=155250>

To order items on the x-axis in ggplot2, you can use the function "scale\_x\_discrete" and specify the desired order using the "limits" argument. Alternatively, you can use the "factor" function to manually reorder the factor levels of the variable mapped to the x-axis. This will ensure that the items appear in the desired order on the plot. Additionally, you can use the "guides" function to customize the labels and breaks on the x-axis. These methods allow for greater control and flexibility in how the items are ordered on the x-axis in ggplot2.

## Order Items on x-axis in ggplot2

You can use the following basic syntax to order the items on the x-axis of a plot in ggplot2:

```
ggplot(df, aes(x=factor(x_var, level=c('value1', 'value2', 'value3')), y=y_var)) +  
geom_col()
```

The following examples show how to use this syntax in practice.

**Example: Order Items on x-axis 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
```

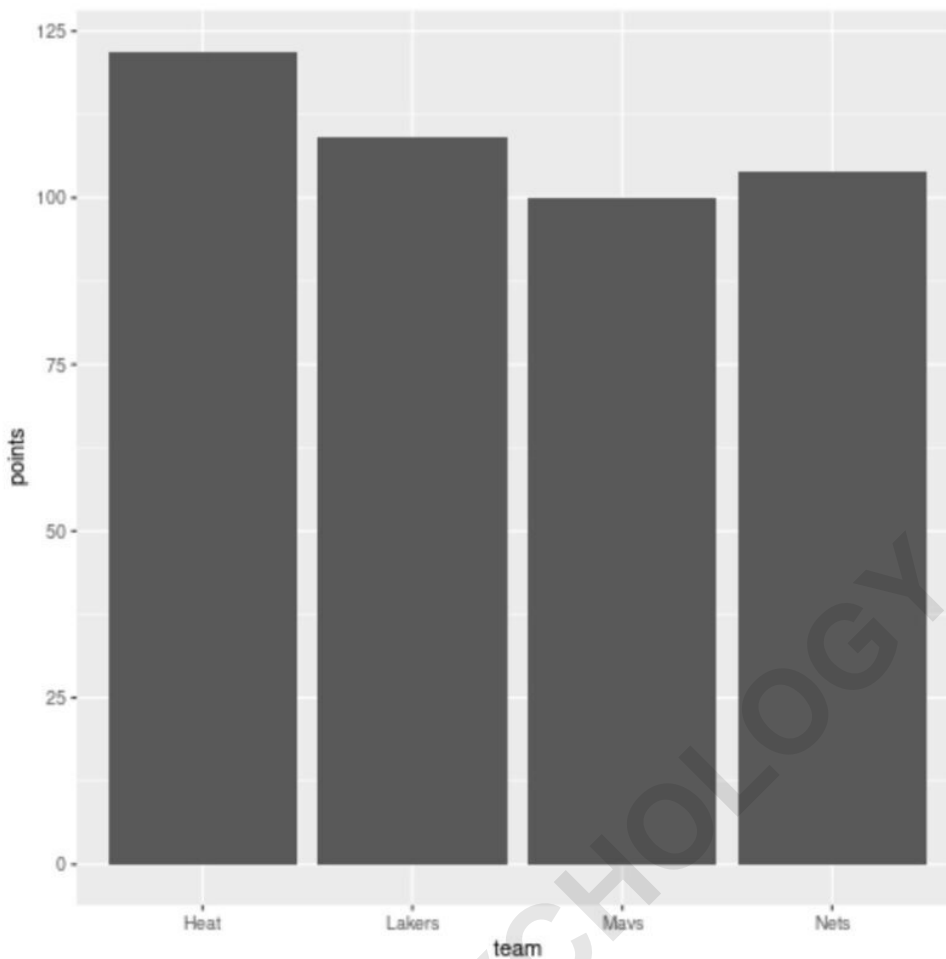
```
4 Lakers 109
```

If we create a bar plot to visualize the points scored by each team, ggplot2 will automatically order the bars in alphabetical order:

```
library(ggplot2)
```

```
#create bar plot
```

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

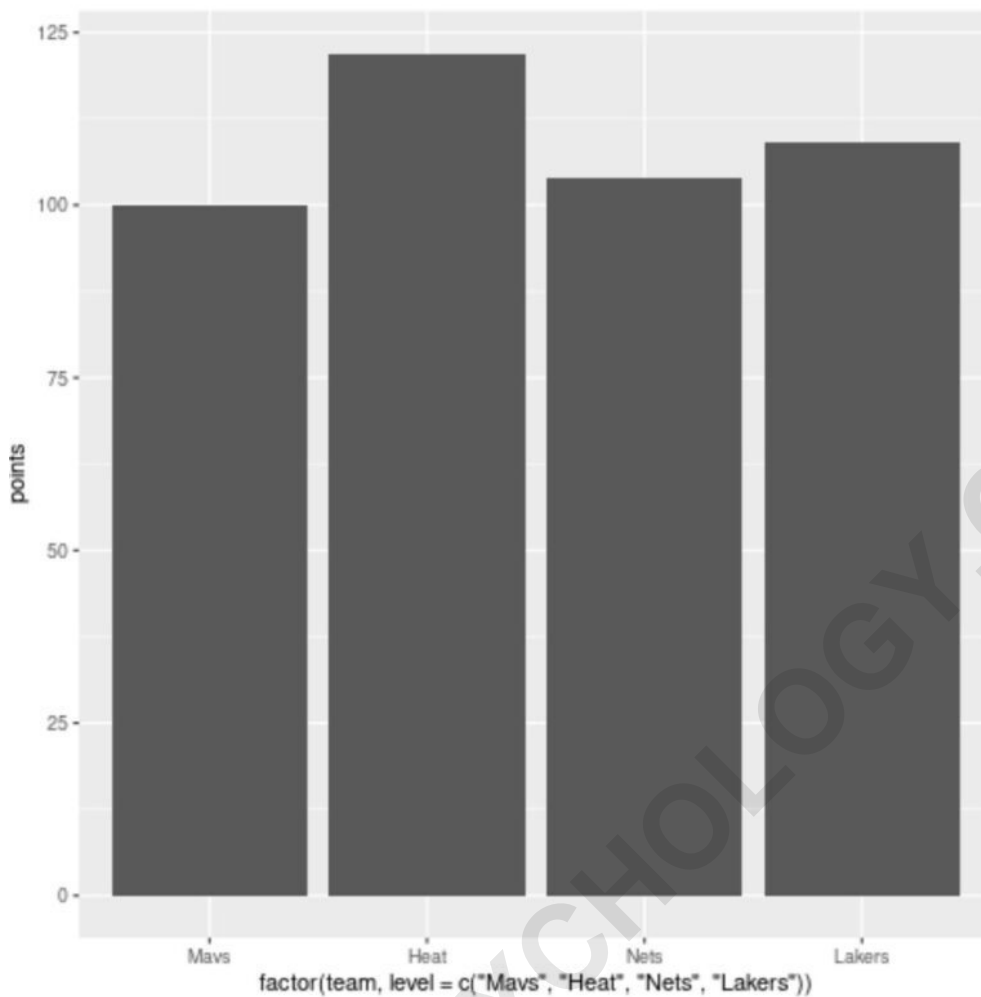


To specify an order for the bars on the x-axis, we can use the level argument as follows:

```
library(ggplot2)
```

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

```
ggplot(df, aes(x=factor(team, level=c('Mavs', 'Heat',  
'Nets', 'Lakers')), y=points)) +  
geom_col()
```



The bars are now in the exact order that we specified inside the level argument.

You may also want to use `xlab()` to rename the x-axis to something that is easier to read:

```
library(ggplot2)
```

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

```
ggplot(df, aes(x=factor(team, level=c('Mavs', 'Heat',
```

`'Nets', 'Lakers'))`, `y=points)`) +  
`geom_col()` +  
`xlab('Team')`

