

How can the number of axis ticks be changed in ggplot2?

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GGplot2 is a powerful data visualization tool that allows users to create high-quality graphs and charts. One of the key features of GGplot2 is the ability to customize the axis ticks. Axis ticks are the small marks or numbers on the axes that help in interpreting the data accurately. By default, GGplot2 automatically generates a suitable number of axis ticks based on the data. However, users can also manually change the number of axis ticks to better represent their data. This can be done by specifying the desired number of ticks using the "scale_" function in GGplot2. By adjusting the number of axis ticks, users can effectively control the level of detail and precision in their graph, making it more visually appealing and informative.

Change Number of Axis Ticks in ggplot2 (With Examples)

You can use the following basic syntax to change the number of axis ticks on plots in ggplot2:

```
p +  
scale_x_continuous(n.breaks=10) +  
scale_y_continuous(n.breaks=10)
```

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

Example: Change Number of Axis Ticks in ggplot2

Suppose we have the following data frame in R:

```
#create data frame
```

```
df <- data.frame(x=c(1, 2, 4, 5, 6, 8, 12, 14, 19),
```

```
y=c(2, 5, 7, 8, 14, 19, 22, 28, 36))
```

```
#view data frame
```

```
df
```

```
x y
```

```
1 1 2
```

```
2 2 5
```

```
3 4 7
```

```
4 5 8
```

```
5 6 14
```

```
6 8 19
```

```
7 12 22
```

```
8 14 28
```

```
9 19 36
```

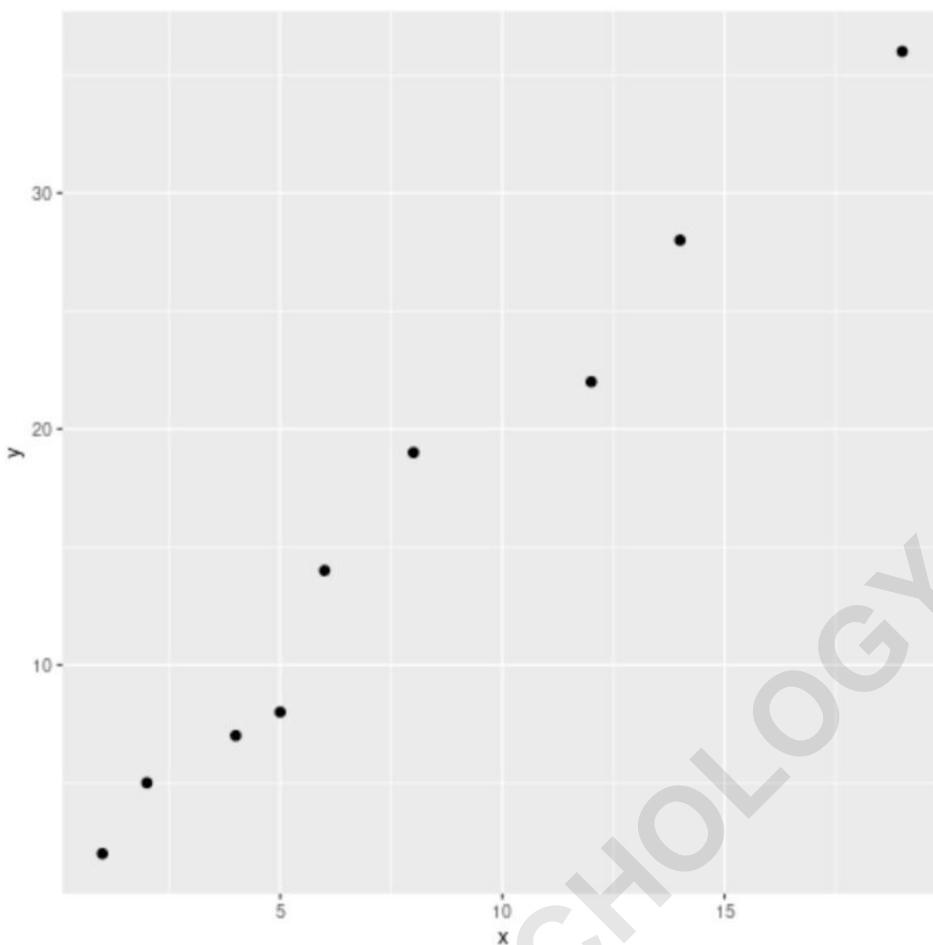
If we create a scatter plot, ggplot2 will automatically pick a suitable number of ticks for both the x-axis and y-axis:

```
library(ggplot2)
```

```
#create scatter plot
```

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

```
geom_point(size=2)
```



However, we can use the `n.breaks` argument to specify the exact number of ticks to use on both axes:

```
library(ggplot2)
```

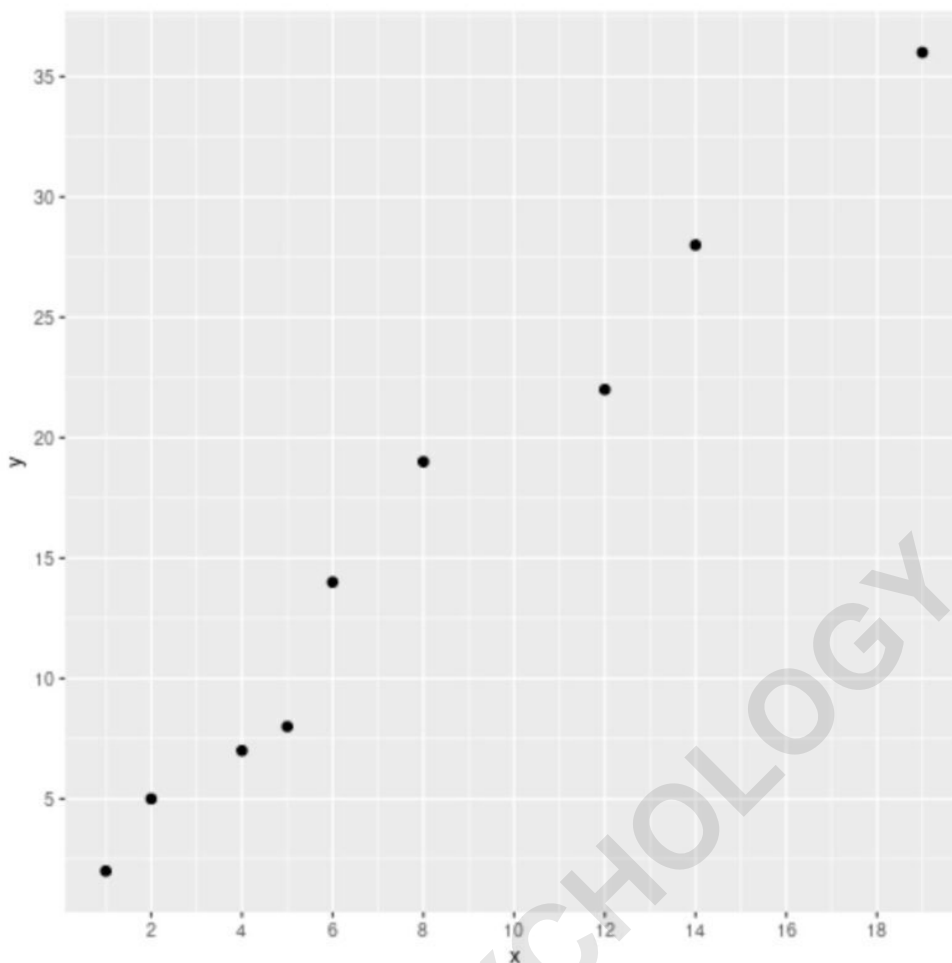
```
#create scatter plot with custom number of ticks
```

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

```
geom_point(size=2) +
```

```
scale_x_continuous(n.breaks=10) +
```

```
scale_y_continuous(n.breaks=10)
```



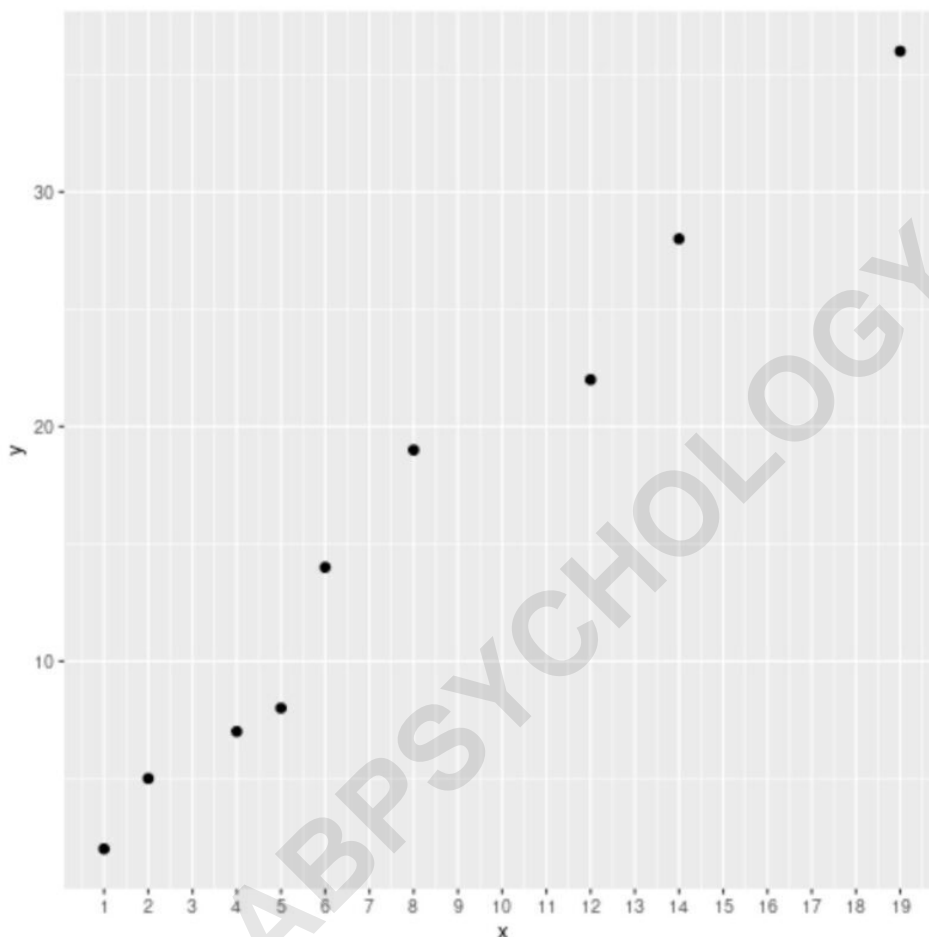
Notice that the number of ticks on both axes has increased.

Also note that you can change the number of ticks on just one axis if you'd like:

```
library(ggplot2)
```

```
#create scatter plot with custom number of ticks on x-axis only
```

```
ggplot(df, aes(x=x, y=y)) +  
geom_point(size=2) +  
scale_x_continuous(n.breaks=20)
```



In this example, ggplot2 chooses the number of ticks to use on the y-axis but the number of ticks on the x-axis is determined by the number in the n.breaks argument.

The following tutorials explain how to perform other

common tasks in ggplot2:

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