

How can I change the spacing between legend items in a ggplot2 graph?

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RECOMMENDED CITATION

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To change the spacing between legend items in a ggplot2 graph, one can use the "theme" function and specify the desired spacing using the "legend.spacing" argument. This will allow for customization of the legend layout and improve the overall aesthetic of the graph. By adjusting the spacing, the viewer can easily differentiate between the different legend items and accurately interpret the graph. This feature is particularly useful when working with complex or crowded graphs that have multiple legend items.

Change Spacing Between Legend Items in ggplot2

You can use the following methods to change the spacing between legend items in ggplot2:

Method 1: Change Horizontal Spacing

```
p +  
theme(legend.spacing.x = unit(1, 'cm'))
```

Method 2: Change Vertical Spacing

```
p +  
theme(legend.spacing.y = unit(1, 'cm')) +  
guides(fill = guide_legend(byrow = TRUE))
```

The following examples show how to use each method in practice with the following data frame:

```
#create data frame
```

```
df <- data.frame(team=c('Mavs', 'Heat', 'Nets', 'Lakers',
```

```
'Suns', 'Cavs'),  
points=c(24, 20, 34, 39, 28, 29),  
assists=c(5, 7, 6, 9, 12, 13))
```

```
#view data frame  
df
```

```
team points assists
```

```
1 Mavs 24 5
```

```
2 Heat 20 7
```

```
3 Nets 34 6
```

```
4 Lakers 39 9
```

```
5 Suns 28 12
```

```
6 Cavs 29 13
```

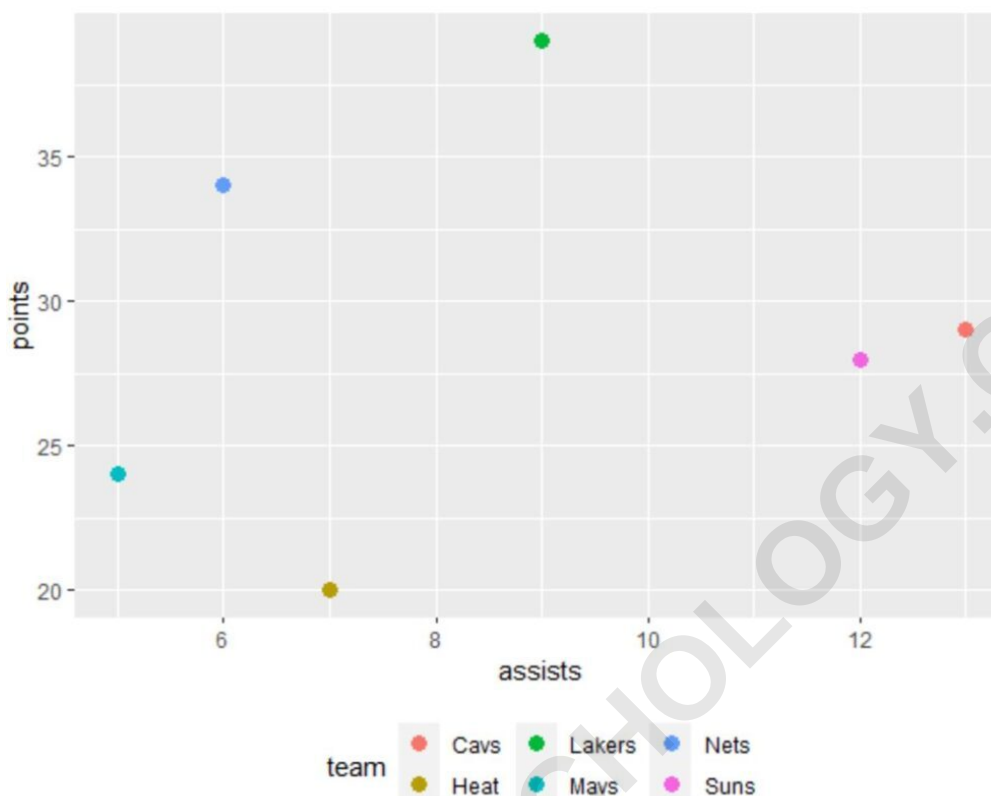
Example 1: Change Horizontal Spacing Between Legend Items

The following code shows how to create a scatter plot in ggplot2 with a horizontal legend with defaulting spacing:

```
library(ggplot2)
```

```
#create scatterplot with default spacing in legend  
ggplot(df, aes(x=assists, y=points, color=team)) +  
geom_point(size=3) +
```

theme(legend.position='bottom')



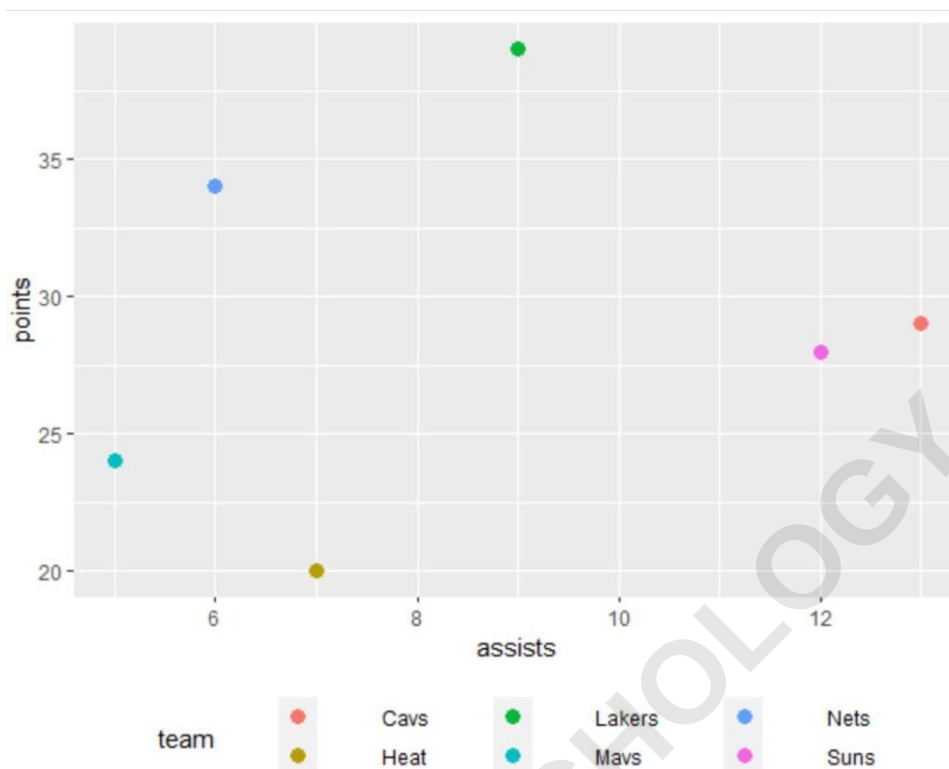
To increase the horizontal spacing between the items in the legend, we can use the `legend.spacing.x` argument:

```
library(ggplot2)
```

```
#create scatterplot with increased horizontal spacing in legend
```

```
ggplot(df, aes(x=assists, y=points, color=team)) +  
geom_point(size=3) +  
theme(legend.position='bottom',
```

legend.spacing.x = unit(1, 'cm'))



Notice that the horizontal spacing between the items in the legend has increased.

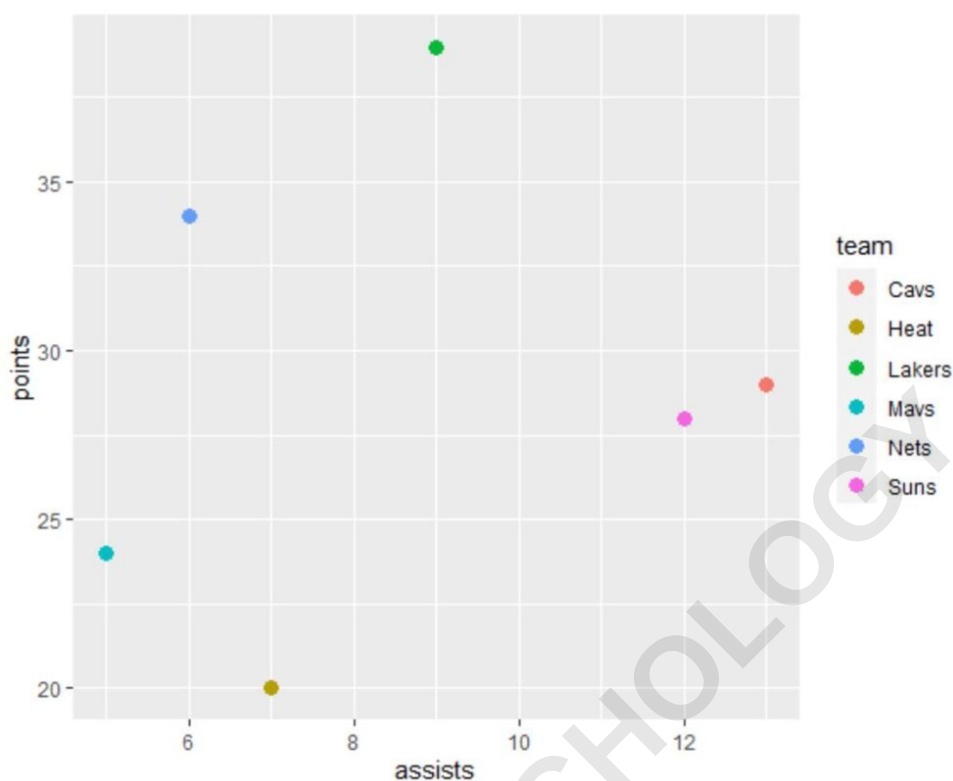
The larger the value you use in the `unit()` function, the greater the spacing will be between items.

Example 2: Change Vertical Spacing Between Legend Items

library(ggplot2)

#create scatterplot with default spacing in legend
ggplot(df, aes(x=assists, y=points, color=team)) +

geom_point(size=3)



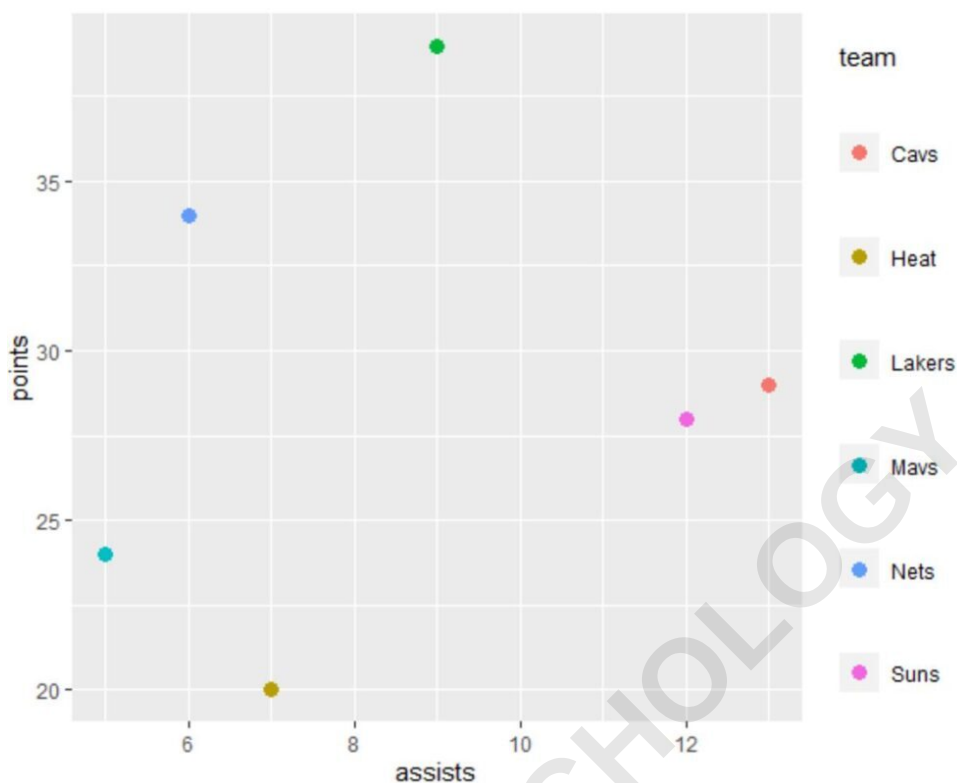
To increase the vertical spacing between the items in the legend, we can use the `legend.spacing.y` argument:

```
library(ggplot2)
```

```
#create scatterplot with increased vertical spacing in legend
```

```
ggplot(df, aes(x=assists, y=points, color=team)) +  
geom_point(size=3) +  
theme(legend.spacing.y = unit(1, 'cm')) +
```

```
guides(fill = guide_legend(byrow = TRUE))
```



Notice that the vertical spacing between the items in the legend has increased.

The larger the value you use in the `unit()` function, the greater the spacing will be between items.

Note: We must include the last line that uses the `byrow = TRUE` argument, otherwise the items in the legend will not be spaced as expected.

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

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