

How can I change the background color in ggplot2?

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GGPlot2 is a powerful data visualization tool that allows users to create visually appealing graphs and charts. One of the key features of GGPlot2 is the ability to customize the appearance of the graphs, including the background color. To change the background color in GGPlot2, users can use the "theme" function and specify the desired background color using the "panel.background" argument. This will allow users to create graphs that are not only informative but also visually appealing. With the flexibility and customizable options of GGPlot2, users can easily create professional-looking graphs for their data analysis needs.

Change Background Color in ggplot2 (With Examples)

You can use the following syntax to change the background color of various elements in a ggplot2 plot:

```
p + theme(panel.background = element_rect(fill =  
'lightblue', color = 'purple'),  
panel.grid.major = element_line(color = 'red', linetype =  
'dotted'),  
panel.grid.minor = element_line(color = 'green', size =  
2))
```

Alternatively, you can use built-in ggplot2 themes to automatically change the background color. Here are some of the more commonly used themes:

```
p + theme_bw() #white background and grey gridlines
```

```
p + theme_minimal() #no background annotations
```

```
p + theme_classic() #axis lines but no gridlines
```

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

Example 1: Specify Custom Background Color

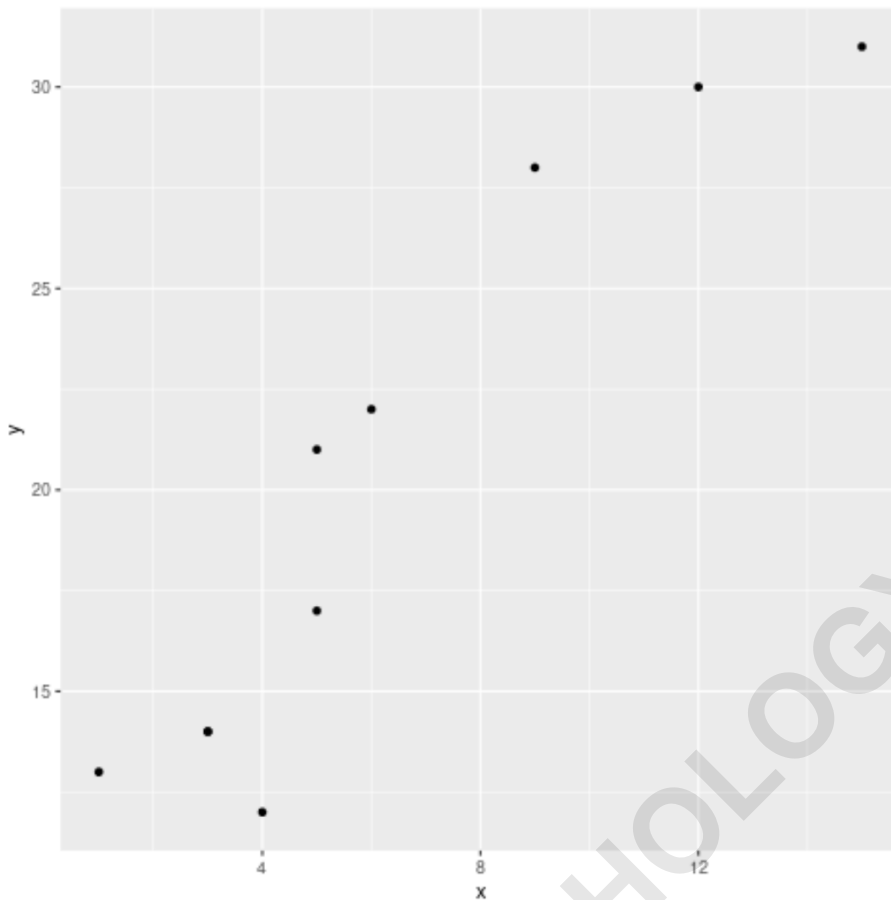
The following code shows how to create a basic scatterplot in ggplot2 with the default grey background:

```
library(ggplot2)

#create data frame
df <- data.frame(x=c(1, 3, 3, 4, 5, 5, 6, 9, 12, 15),
y=c(13, 14, 14, 12, 17, 21, 22, 28, 30, 31))

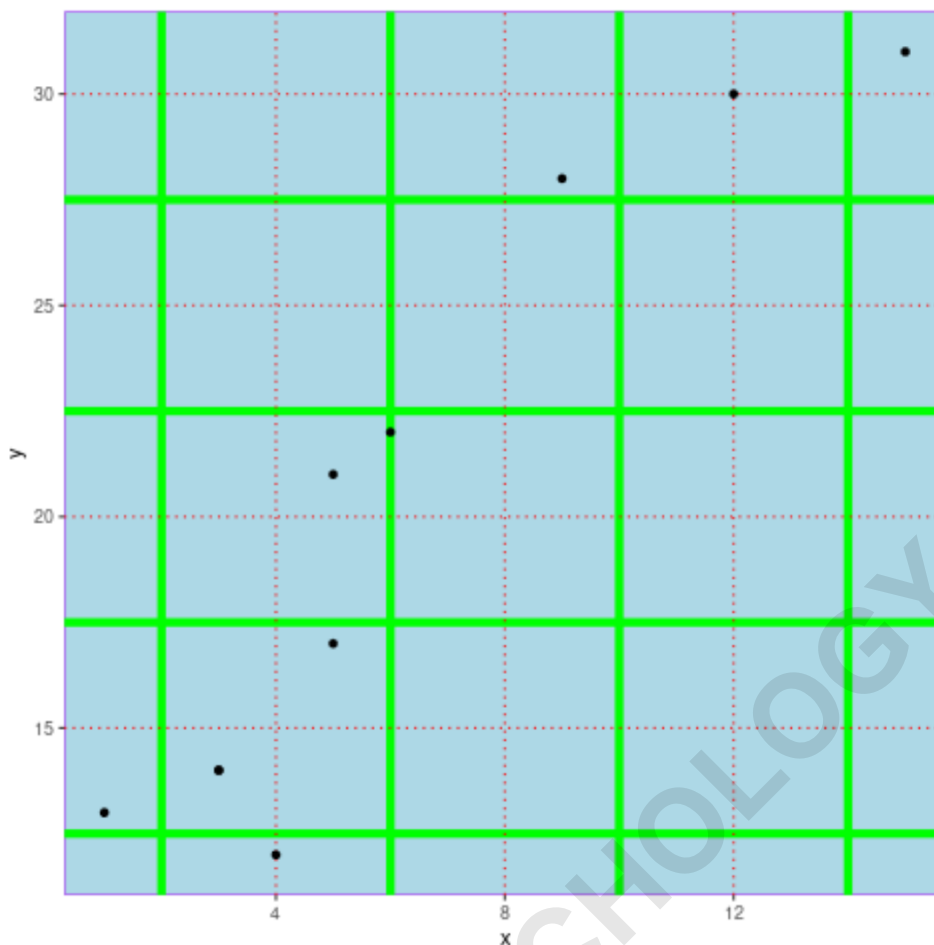
#create scatterplot
p <- ggplot(df, aes(x=x, y=y)) +
geom_point()

#display scatterplot
p
```



We can use the following code to change the background color of the panel along with the major and minor gridlines:

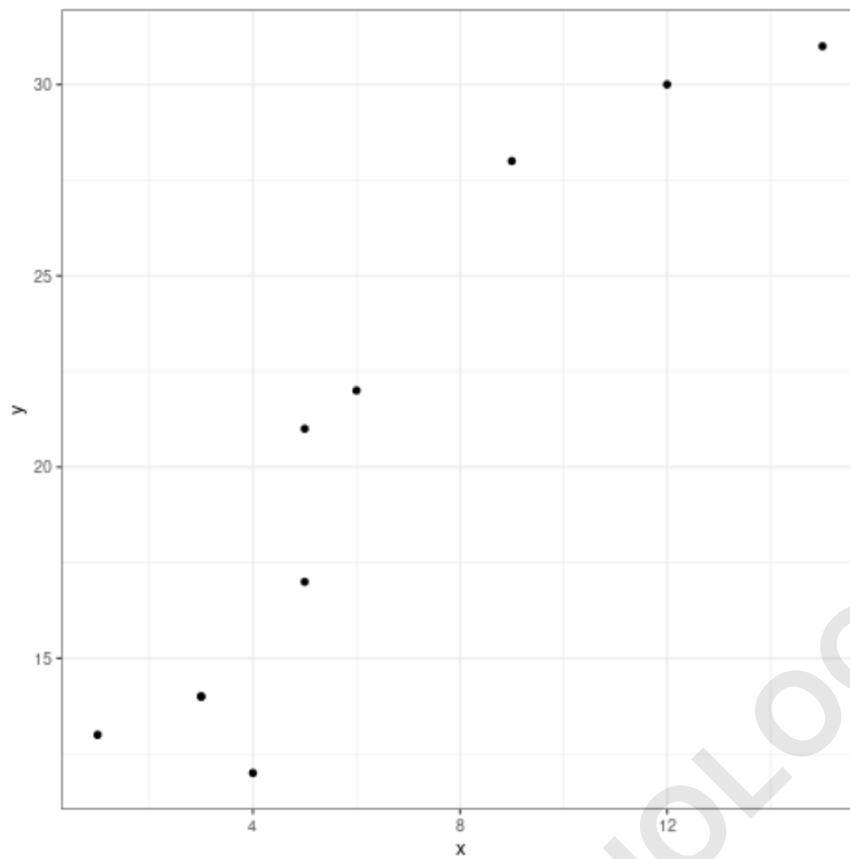
```
p + theme(panel.background = element_rect(fill =  
'lightblue', color = 'purple'),  
panel.grid.major = element_line(color = 'red', linetype =  
'dotted'),  
panel.grid.minor = element_line(color = 'green', size =  
2))
```



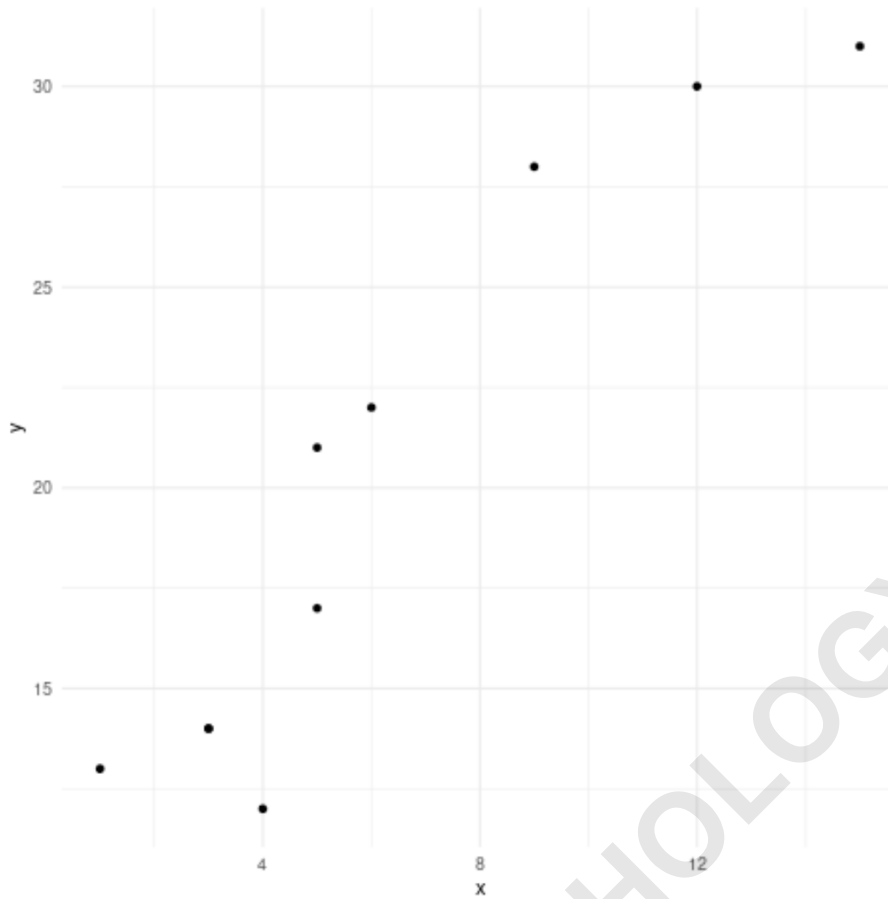
Example 2: Use Built-in Theme to Change Background Color

The following code shows how to use various built-in ggplot2 themes to automatically change the background color of the plots:

```
p + theme_bw() #white background and grey gridlines
```



p + theme_minimal() #no background annotations



p + theme_classic() #axis lines but no gridlines

