

How can titles be added to plots in base R?

Authored by
stats writer

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Adding titles to plots in base R is a simple process that helps to enhance the visual and communicative aspect of a graph or chart. In order to add a title to a plot in base R, the user can use the "main" argument within the plot function, which allows for the input of a descriptive title. This title can be customized in terms of font, size, and placement using additional arguments such as "font.main" and "cex.main". Adding a title to a plot in base R is an important step in presenting data effectively and providing context to the information being displayed.

Add Titles to Plots in Base R (With Examples)

You can use the `title()` function to quickly add a title to a plot in base R.

This function uses the following basic syntax:

```
#create scatterplot of x vs. y  
plot(df$x, df$y)
```

```
#add title  
title('This is my title')
```

You can also use the following arguments in the `title()` function to customize the appearance of the title:

col.main: The color of the title
cex.main: The size of the title relative to the default size
font.main: The font style to use for the title (1=plain, 2=bold, 3=italic, 4=bold italic)
adj: The horizontal location of the title (0=left, 1=right, default is 0.5)
line: The vertical location of the

title (positive values move title up, negative values move title down)

The following example shows how to use the title() function in practice.

Example: How to Add Title to Plots in Base R

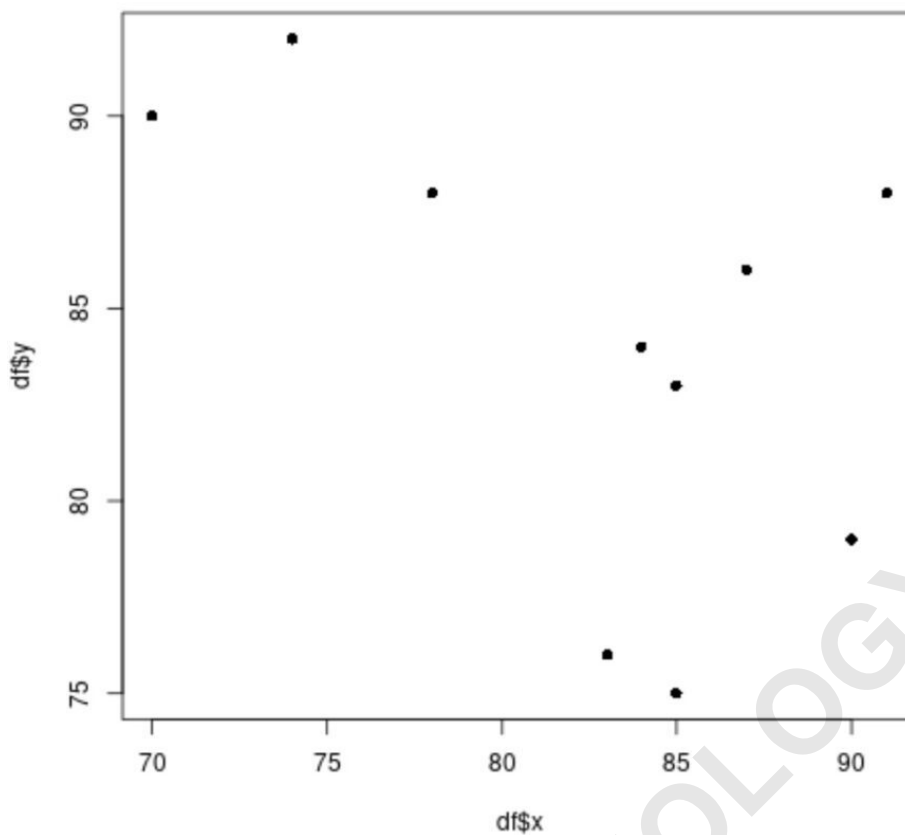
Suppose we use the plot() function in base R to create a simple scatterplot:

#create data frame

```
df <- data.frame(x=c(70, 78, 90, 87, 84, 85, 91, 74, 83, 85),  
y=c(90, 88, 79, 86, 84, 83, 88, 92, 76, 75))
```

#create scatterplot of x vs. y

```
plot(df$x, df$y, pch=16)
```



By default, base R does not add a title to the plot.

However, we can use the `title()` function to quickly add a title:

`#create data frame`

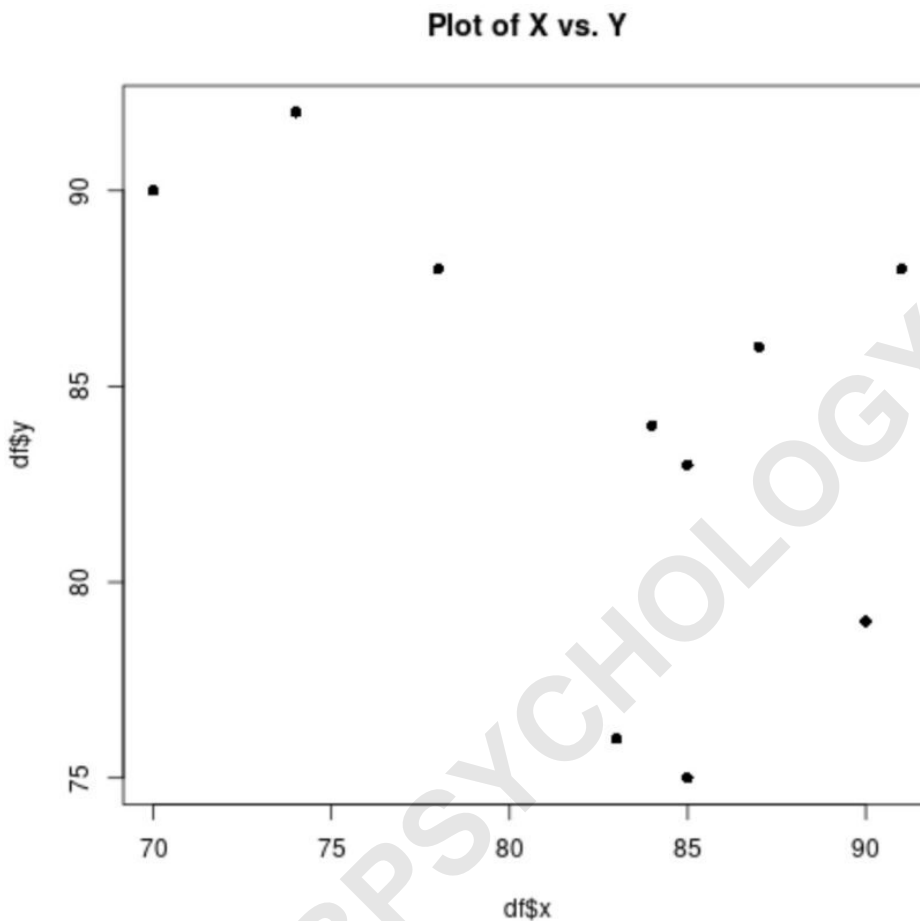
```
df <- data.frame(x=c(70, 78, 90, 87, 84, 85, 91, 74, 83, 85),  
y=c(90, 88, 79, 86, 84, 83, 88, 92, 76, 75))
```

`#create scatterplot of x vs. y`

```
plot(df$x, df$y, pch=16)
```

```
#add title
```

```
title('Plot of X vs. Y')
```



Notice that a title has been added to the plot.

We can customize the appearance of the title by using various arguments:

```
#create data frame
```

```
df <- data.frame(x=c(70, 78, 90, 87, 84, 85, 91, 74, 83, 85),
```

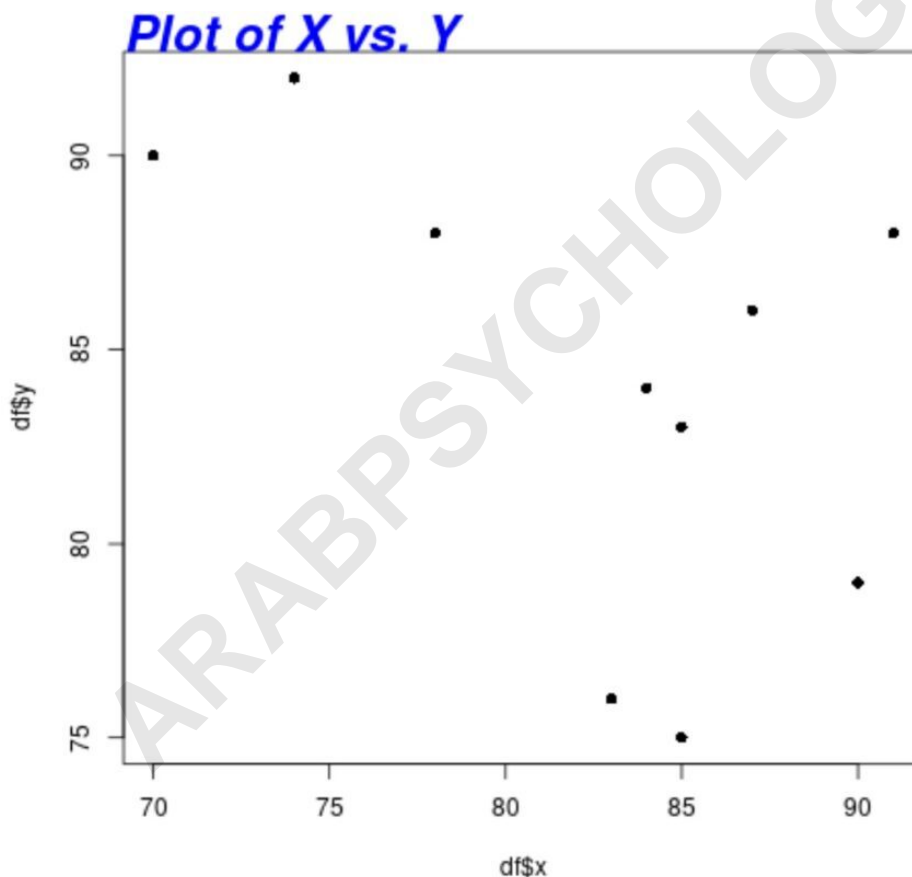
```
y=c(90, 88, 79, 86, 84, 83, 88, 92, 76, 75))
```

```
#create scatterplot of x vs. y
```

```
plot(df$x, df$y, pch=16)
```

```
#add title with custom appearance
```

```
title('Plot of X vs. Y', col.main='blue', cex.main=2,  
font.main=4, adj=0, line=0)
```



Here is exactly what each argument did:

col.main: Changed title font color to blue.**cex.main:**

Increased title font to twice the default size.`font.main:`
Changed title font style to italic.`adj:` Moved title all the way to the left.
line: Moved title down to touch the top of the plot.

Feel free to play around with these various arguments in the `title()` function to create the exact title you'd like in your own plot.

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