

How can I overlay plots in R? Can you provide examples?

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Overlaying plots in R refers to the process of superimposing multiple plots on top of each other to create a single, comprehensive visualization. This technique is commonly used in data analysis and visualization to compare and contrast different datasets or to display various aspects of the same data. To overlay plots in R, one can use the "plot" function along with the "lines" or "points" functions to add additional elements to an existing plot. Other methods such as the "ggplot2" package can also be used for more advanced overlaying techniques. Examples of overlaying plots in R can include combining scatter plots, line graphs, bar charts, and histograms, among others.

Overlay Plots in R (With Examples)

You can use the lines() and points() functions to overlay multiple plots in R:

#create scatterplot of x1 vs. y1

plot(x1, y1)

#overlay line plot of x2 vs. y2

lines(x2, y2)

#overlay scatterplot of x3 vs. y3

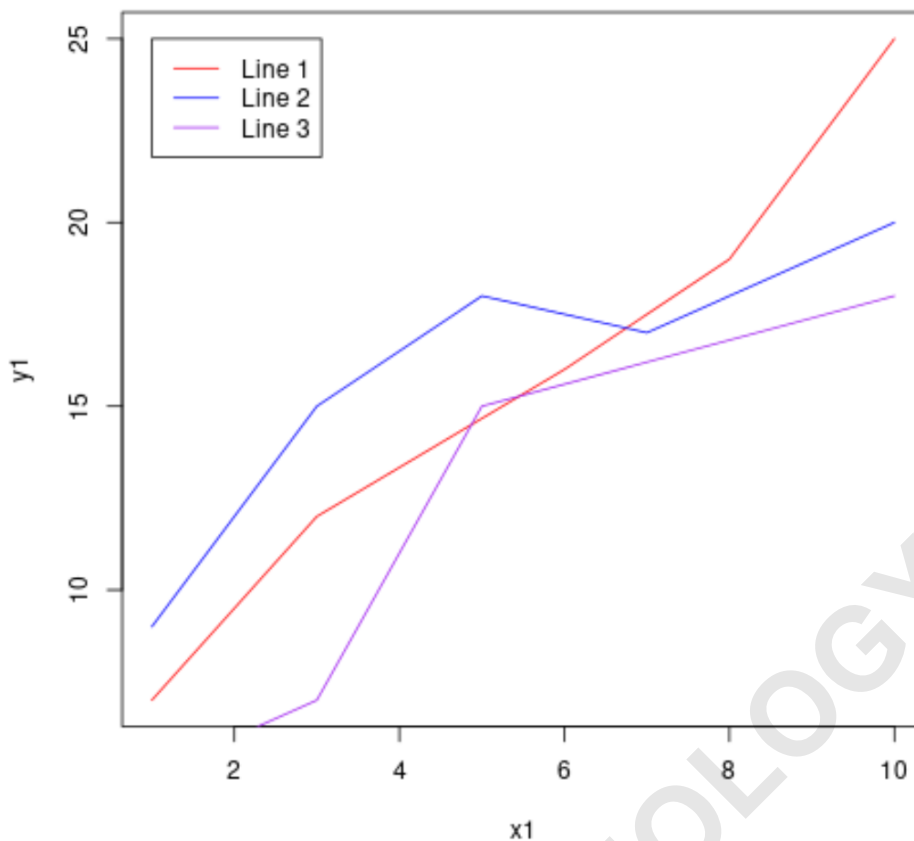
points(x2, y2)

The following examples show how to use each of these functions in practice.

Example 1: How to Overlay Line Plots in R

The following code shows how to overlay three line plots in a single plot in R:

#define datasets**x1 = c(1, 3, 6, 8, 10)****y1 = c(7, 12, 16, 19, 25)****x2 = c(1, 3, 5, 7, 10)****y2 = c(9, 15, 18, 17, 20)****x3 = c(1, 2, 3, 5, 10)****y3 = c(5, 6, 7, 15, 18)****#create line plot of x1 vs. y1****plot(x1, y1, type='l', col='red')****#overlay line plot of x2 vs. y2****lines(x2, y2, col='blue')****#overlay line plot of x3 vs. y3****lines(x3, y3, col='purple')****#add legend****legend(1, 25, legend=c('Line 1', 'Line 2', 'Line 3'),****col=c('red', 'blue', 'purple'), lty=1)**



Example 2: How to Overlay Scatterplots in R

The following code shows how to overlay two scatterplots in a single plot in R:

```
#define datasets
```

```
x1 = c(1, 3, 6, 8, 10)
```

```
y1 = c(7, 12, 16, 19, 25)
```

```
x2 = c(1, 3, 5, 7, 10)
```

```
y2 = c(9, 15, 18, 17, 20)
```

```
#create scatterplot of x1 vs. y1
```

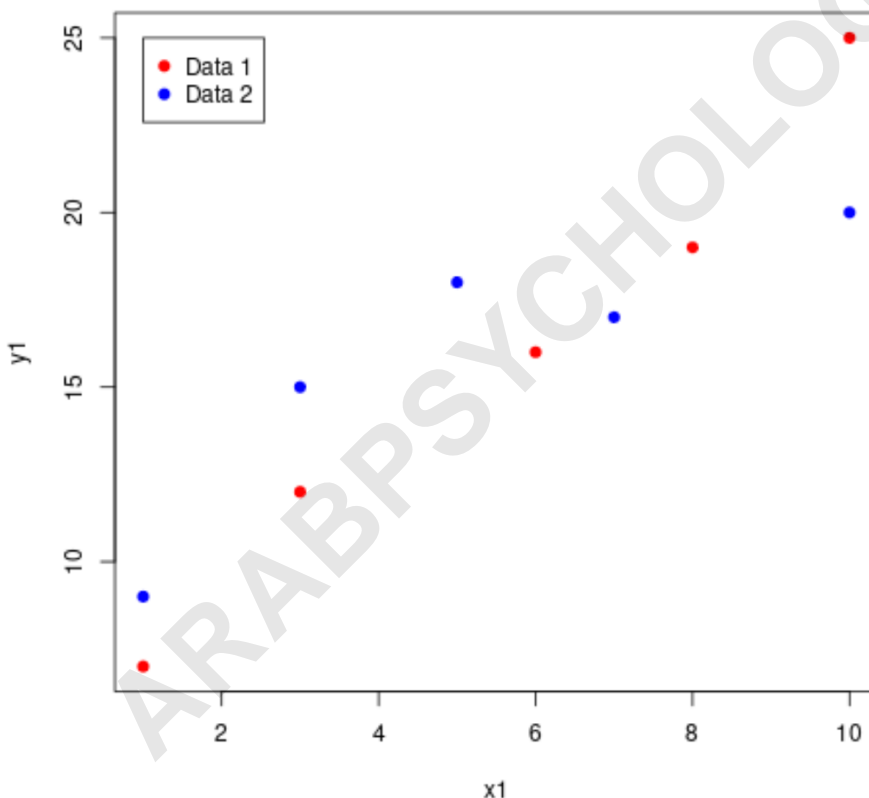
```
plot(x1, y1, col='red', pch=19)
```

```
#overlay scatterplot of x2 vs. y2
```

```
points(x2, y2, col='blue', pch=19)
```

```
#add legend
```

```
legend(1, 25, legend=c('Data 1', 'Data 2'), pch=c(19, 19),  
col=c('red', 'blue'))
```



Note that the pch argument specifies the shape of the points in the plot. A pch value of 19 specifies a filled-in circle.

You can find a complete list of pch values and their corresponding shapes .

The following tutorials explain how to perform other common plotting functions in R:

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