Why we are getting the error “plot.new has not been called yet” when trying to fix something in R

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The error "plot.new has not been called yet" in R typically occurs when trying to make changes or updates to a plot before it has been created or initiated. This can happen if the necessary commands to generate the plot have not been executed, or if there is an issue with the code. To resolve this error, it is important to ensure that all necessary steps for creating the plot have been followed and that the code is free of any errors. Additionally, double-checking the order of commands and making sure that the plot has been initialized can also help to prevent this error from occurring.

Fix in R: plot.new has not been called yet

One error you may encounter when using R is:

Error in plot.xy(xy.coords(x, y), type = type, ...) : plot.new has not been called yet

This error occurs when you attempt to perform some action that requires a plot to already exist in R, yet a plot does not exist.

The following examples show how to fix this error in practice.

Example 1: How to Fix Error with lines()

Suppose we attempt to plot a fitted regression line in R:

```
#create data
df <- data.frame(x=c(1, 2, 2, 3, 5, 6, 8, 8, 9, 9, 10, 11, 12, 15, 15),
```

```
y=c(2, 3, 3, 4, 5, 5, 6, 7, 8, 8, 9, 10, 16, 19, 28))

#fit polynomial regression model
model <- lm(y~poly(x, 2), data=df)

#define new sequence of x-values
new_x <- seq(min(df$x), max(df$y))

#attempt to plot fitted regression line
lines(new_x, predict(model, newdata = data.frame(x=new_x)))
```

```
Error in plot.xy(xy.coords(x, y), type = type, ...) :
plot.new has not been called yet
```

We receive an error because we can't use the lines() function without first creating a plot in R.

To fix this error, we can first create a scatterplot and then use the lines() function:

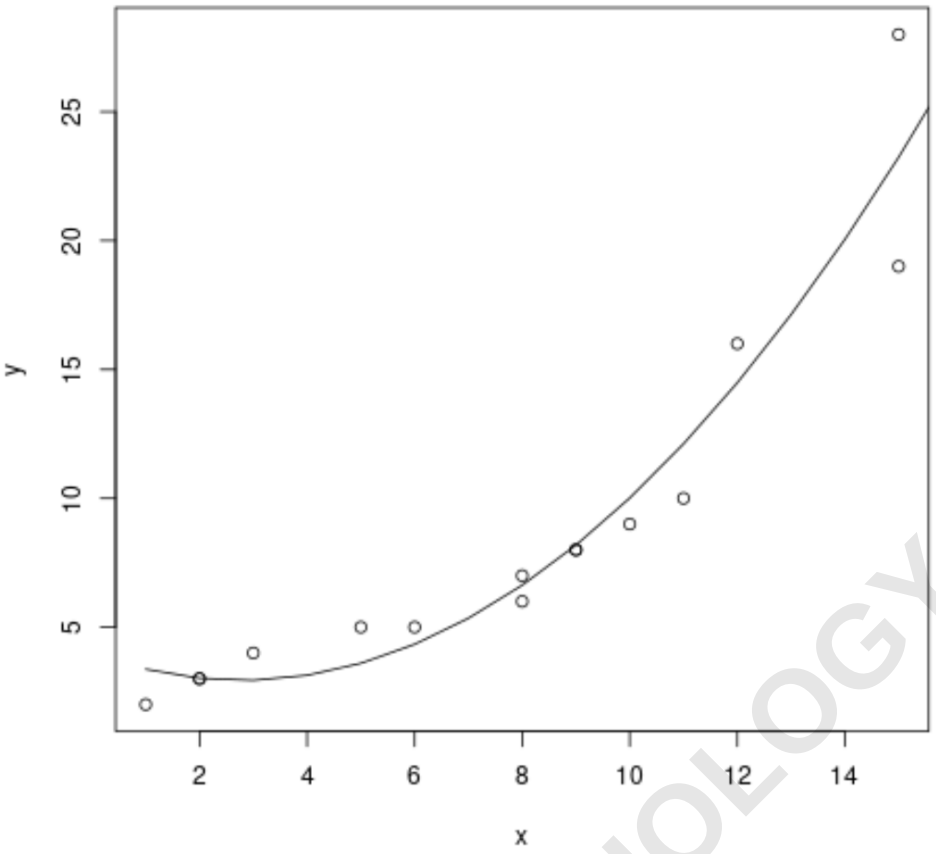
```
#create data
df <- data.frame(x=c(1, 2, 2, 3, 5, 6, 8, 8, 9, 9, 10, 11, 12, 15, 15),
y=c(2, 3, 3, 4, 5, 5, 6, 7, 8, 8, 9, 10, 16, 19, 28))
```

```
#fit polynomial regression model
model <- lm(y~poly(x, 2), data=df)

#define new sequence of x-values
new_x <- seq(min(df$x), max(df$y))

#create scatterplot of x vs. y values
plot(y~x, data=df)

#attempt to plot fitted regression line
lines(new_x, predict(model, newdata =
data.frame(x=new_x)))
```



Notice that we don't receive an error because we first used the plot() function before using the lines() function.

Example 2: How to Fix Error with abline()

Suppose we attempt to create a scatterplot with a straight horizontal line in R:

```
#create data
df <- data.frame(x=c(1, 2, 2, 3, 5, 6, 8, 8, 9, 9, 10, 11, 12, 15, 15),
```

```
y=c(2, 3, 3, 4, 5, 5, 6, 7, 8, 8, 9, 10, 16, 19, 28))

#attempt to add horizontal line at y=10
abline(a=10, b=0, lwd=2)
```

```
Error in plot.xy(xy.coords(x, y), type = type, ...) :
plot.new has not been called yet
```

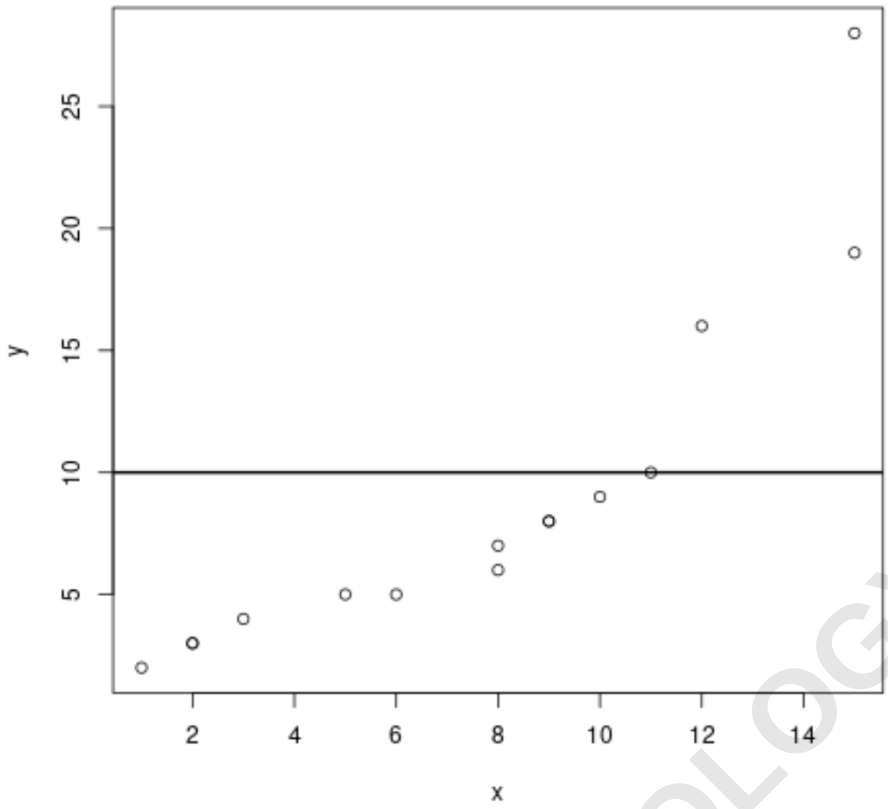
We receive an error because we can't use the abline() function without first creating a plot in R.

To fix this error, we can first create a scatterplot and then use the abline() function:

```
#create data
df <- data.frame(x=c(1, 2, 2, 3, 5, 6, 8, 8, 9, 9, 10, 11, 12, 15, 15),
y=c(2, 3, 3, 4, 5, 5, 6, 7, 8, 8, 9, 10, 16, 19, 28))

#create scatterplot of x vs. y
plot(y~x, data=df)

#add horizontal line at y=10
abline(a=10, b=0, lwd=2)
```



Notice that we don't receive an error because we first used the plot() function before using the abline() function.

The following tutorials explain how to fix other common errors in R: