col(blue),lwd(3),type(l)

col(red),lwd(4),type(p)

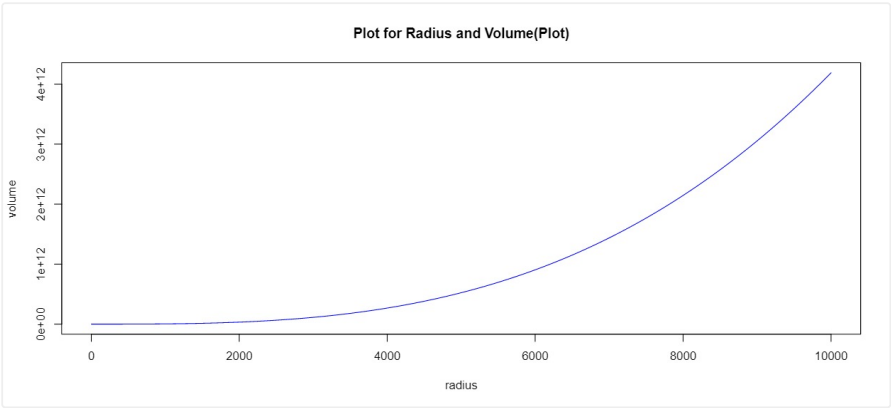col(green),lwd(5),type(n)

col(yellow),lwd(6),type(b)

```
3  radius = c(1, 3, 5, 7)
4  volume = 4/3 * pi * radius^3
5  par(mfrow = c(2, 2))
6  plot(radius, volume, main = "col(blue),lwd(3),type(l)", xlab = "Radius", ylab = "Volume", ylim = c(0, 1500), xlim = c(-1, 9), col = "blue", type = "l", lwd = 3)
7  plot(radius, volume, main = "col(red),lwd(4),type(p)", xlab = "Radius", ylab = "Volume", ylim = c(0, 1500), xlim = c(-1, 9), col = "red", type = "p", lwd = 4)
8  plot(radius, volume, main = "col(green),lwd(5),type(n)", xlab = "Radius", ylab = "Volume", ylim = c(0, 1500), xlim = c(-1, 9), col = "green", type = "n", lwd = 5)
9  plot(radius, volume, main = "col(yellow),lwd(6),type(b)", xlab = "Radius", ylab = "Volume", ylim = c(0, 1500), xlim = c(-1, 9), col = "yellow", type = "b", lwd = 6)
10 |
11
```

> Should specify what each line type stands for in the main title. Use more informative main title.

```
3  radius = c(1, 3, 5, 7)
4  volume = 4/3 * pi * radius^3
5  par(mfrow = c(2, 2))
6  plot(radius, volume, main = "col(blue),lwd(3),type(l)", xlab = "Radius", ylab = "Volume", ylim = c(0, 1500), xlim = c(-1, 9), col = "blue", type = "l", lwd = 3)
7  plot(radius, volume, main = "col(red),lwd(4),type(p)", xlab = "Radius", ylab = "Volume", ylim = c(0, 1500), xlim = c(-1, 9), col = "red", type = "p", lwd = 4)
9  plot(radius, volume, main = "col(yellow),lwd(6),type(b)", xlab = "Radius", ylab = "Volume", ylim = c(0, 1500), xlim = c(-1, 9), col = "yellow", type = "b", lwd = 6)
10 |
11
```
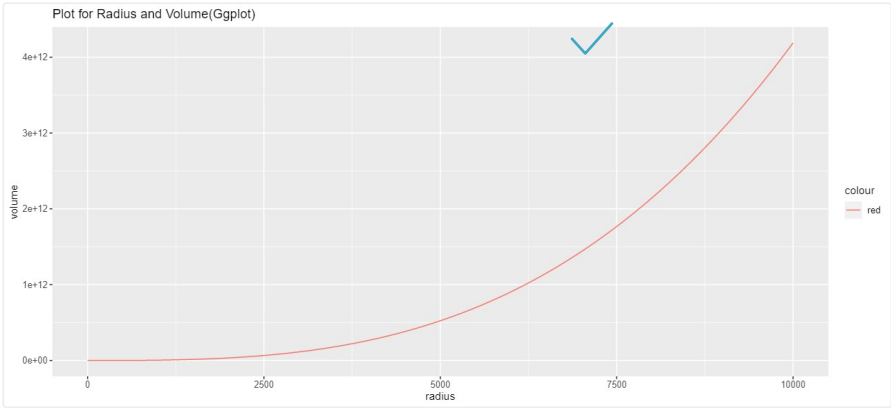
```
Lab1.R*
        Source on Save
1  # QUESTION2 ##############
2  radius = seq(1:10000)
3  volume = 4/3 * pi * radius^
4  plot(radius, volume, main =
5
6
7
8  values = as.data.frame(rad
9  values1 = as.data.frame(vol
10 library(ggplot2)
11 ggplot(values,values1, mapp          ...ot for Radius and volume(ggplot)")
12
13
```

the length variable in seq() should
be 10,000   **-0.5**

Plot for Radius and Volume(Plot)

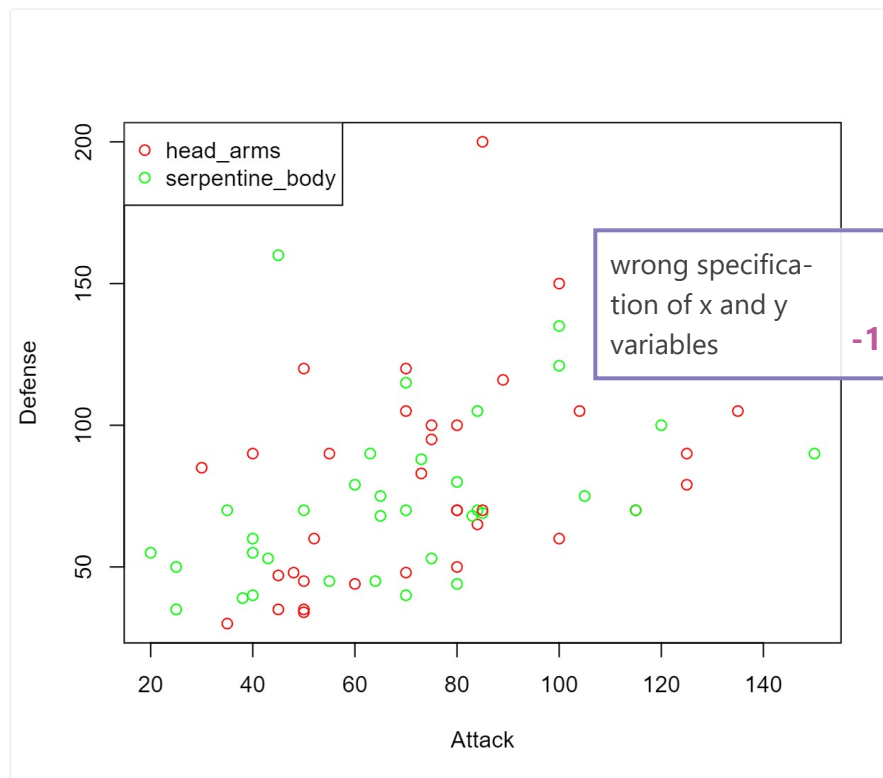Plot for Radius and Volume(Ggplot)

```
 5
 6 ▾ # QUESTION3 ####################
 7   x = seq(-10,10,by = 1);val1=x^2;val2=2^x
 8   #plot
 9   plot(x,val1,type="b",pch=20,col="red",xlab="X",ylab="Y")
 0   #lines
 1   lines(x,val2,pch=10,col="blue",type="b",lty=2)
 2   #legend
 3   legend(-8,100,legend=c("x^2","2^x"),col=c("red","blue"),pch = c(20, 10),lty=1:2, cex = 1)
 4
```

No title. **-1**

```
L3
L4 ▾ # QUESTION4 ##################
L5
L6   getwd()
L7   setwd("C:/Users/chopr/OneDrive/Desktop/STAT 240")
L8
L9   poke = read.csv(file = "pokemon_2019.csv", header = TRUE, sep = ",")
20   poke1 <- poke[poke[,"Height_m"]>2 & poke[, "isLegendary"] == "True",]
21   poke1 <- as.data.frame(poke1$Name)
22
23   poke2 <- poke[poke[, "Body_Style"] == "head_arms" | poke[, "Body_Style"] == "serpentine_body",]
24   #plot
25   plot(poke2[, "Attack"], poke2[, "Defense"], xlab = "Attack", ylab = "Defense", col = c("green", "red"), pch = 1)
26   #legend
27   legend(x = "topleft", c("head_arms", "serpentine_body"), col = c("red", "green"), pch = 1)
28
```

Lab1.R* ✕	poke3 ✕

← →   ⊡   ▽ Filter

▲	poke1$Name ✓ ⇕
1	Moltres
2	Mewtwo
3	Entei
4	Suicune
5	Lugia
6	Ho-Oh
7	Latios
8	Kyogre
9	Groudon
10	Rayquaza
11	Dialga
12	Palkia

13	Regigigas
14	Giratina
15	Arceus
16	Cobalion
17	Virizion
18	Reshiram
19	Zekrom
20	Kyurem
21	Xerneas
22	Yveltal
23	Zygarde

wrong specifica-
tion of x and y
variables

-1

```
Console  C:/Users/chopr/OneDrive/Desktop/STAT 240/
>  #QUESTION5############################
>  f1 = 1
>  f2 = 1
>  sum = f1 + f2
>  fn = function(A)
+  {
+     for (i in 1:(A-2))
+     {
+        f3 = f1 + f2
+        f1 = f2
+        f2 = f3
+        sum = sum + f3
+     }
+     print(sum)
+  }
>  fn(20) # sum of first 20 fibonacci numbers
[1] 17710
>  |
```