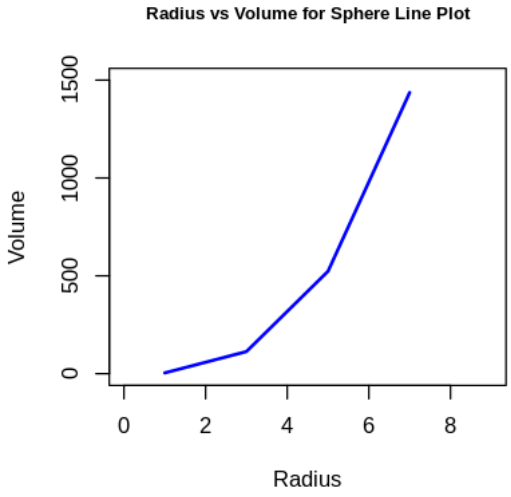
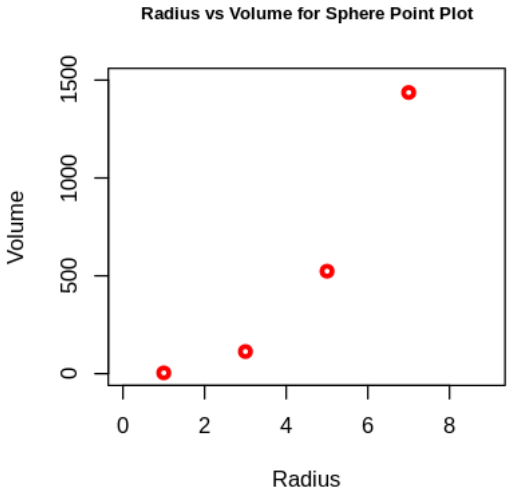
Problem 1

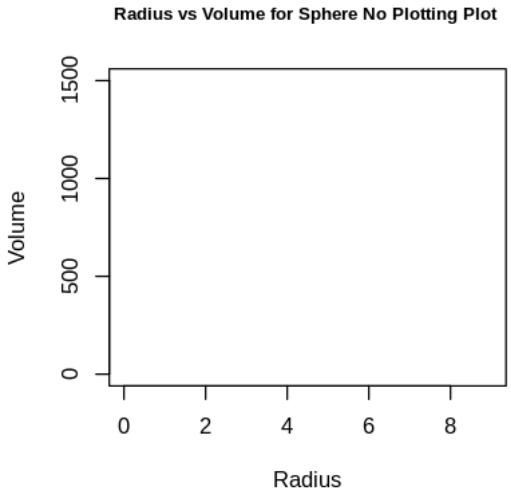
January 19, 2021

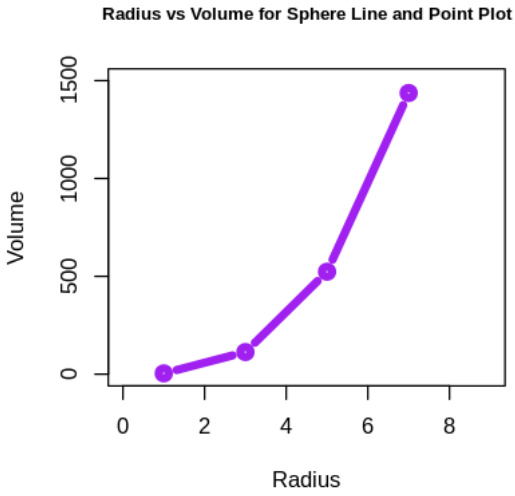
Question 1a and 1b (scroll down to see the plot)

[1]:
```
radius = c(1,3,5,7)
volume = 4/3*pi*radius^3
par(mfrow=c(2,2))
plot(radius,volume,main="Radius vs Volume for Sphere Line Plot",
     xlab="Radius",
     ylab="Volume",
     col = 'blue',
     lwd = 2,
     type = 'l',
     cex.main=0.8,
     ylim=c(0,1500),xlim=c(0,9))
plot(radius,volume,main="Radius vs Volume for Sphere Point Plot",
     xlab="Radius",
     ylab="Volume",
     col = 'red',
     lwd = 3,
     type = 'p',
     cex.main=0.8,
     ylim=c(0,1500),xlim=c(0,9))
plot(radius,volume,main="Radius vs Volume for Sphere No Plotting Plot ",
     xlab="Radius",
     ylab="Volume",
     col = 'green',
     lwd = 4,
     type = 'n',
     cex.main=0.8,
     ylim=c(0,1500),xlim=c(0,9))
plot(radius,volume,main="Radius vs Volume for Sphere Line and Point Plot",
     xlab="Radius",
     ylab="Volume",
     col = 'purple',
     lwd = 5,
     type = 'b',
     cex.main=0.8,
     ylim=c(0,1500),xlim=c(0,9))
```


Radius vs Volume for Sphere Line Plot
Volume
0
500
1000
1500
0
2
4
6
8
Radius


Radius vs Volume for Sphere Point Plot
Volume
0
500
1000
1500
0
2
4
6
8
Radius


Radius vs Volume for Sphere No Plotting Plot
Volume
0
500
1000
1500
0
2
4
6
8
Radius


Radius vs Volume for Sphere Line and Point Plot
Volume
0
500
1000
1500
0
2
4
6
8
Radius