INTRODUCTION TO R

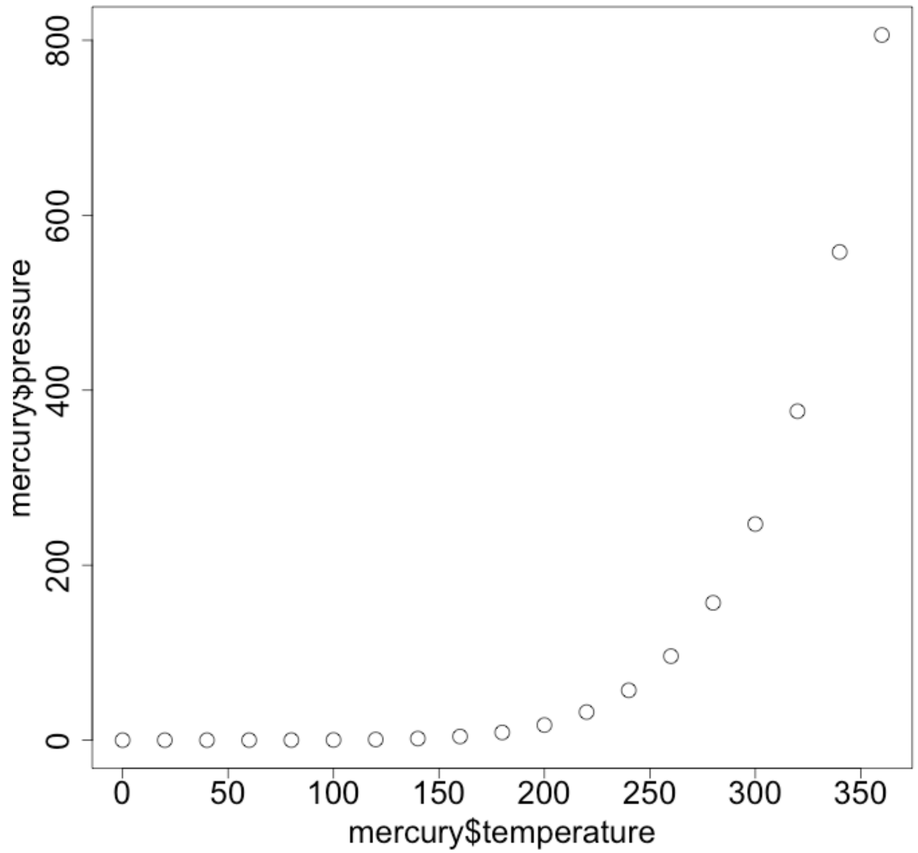
Customizing Plots

mercury

```
> mercury
   temperature pressure
1            0   0.0002
2           20   0.0012
3           40   0.0060
4           60   0.0300
5           80   0.0900
6          100   0.2700
7          120   0.7500
8          140   1.8500
9          160   4.2000
10         180   8.8000
11         200  17.3000
...
19         360 806.0000
```

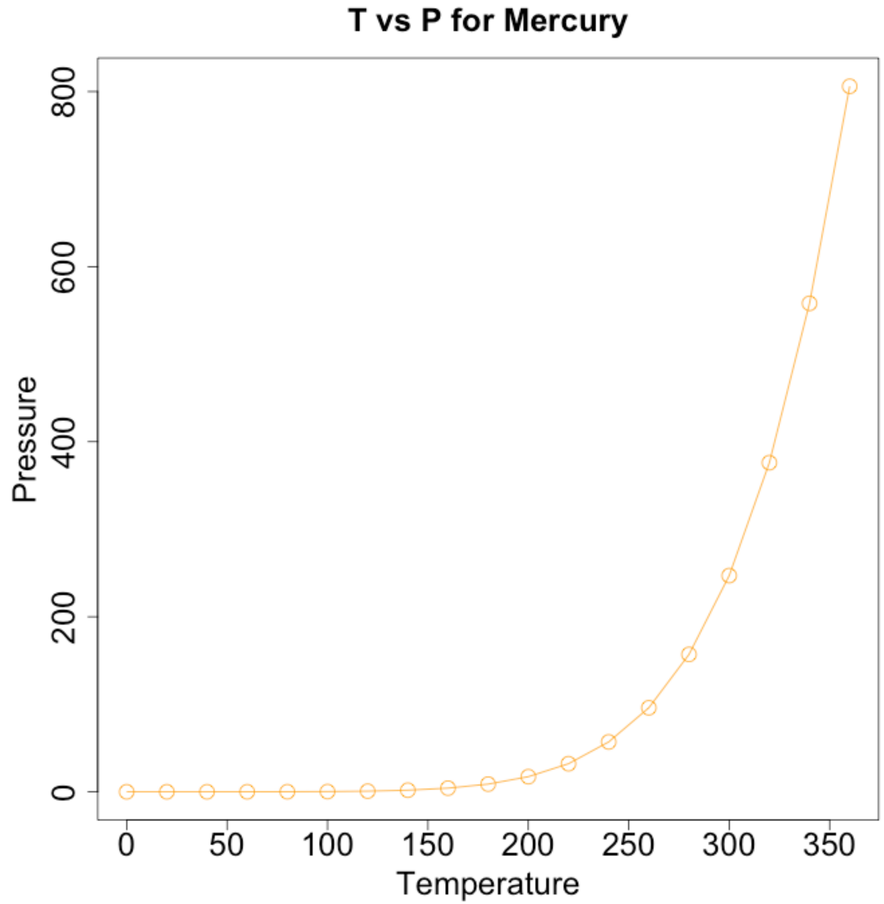
Basic plot

```
> plot(mercury$temperature, mercury$pressure)
```



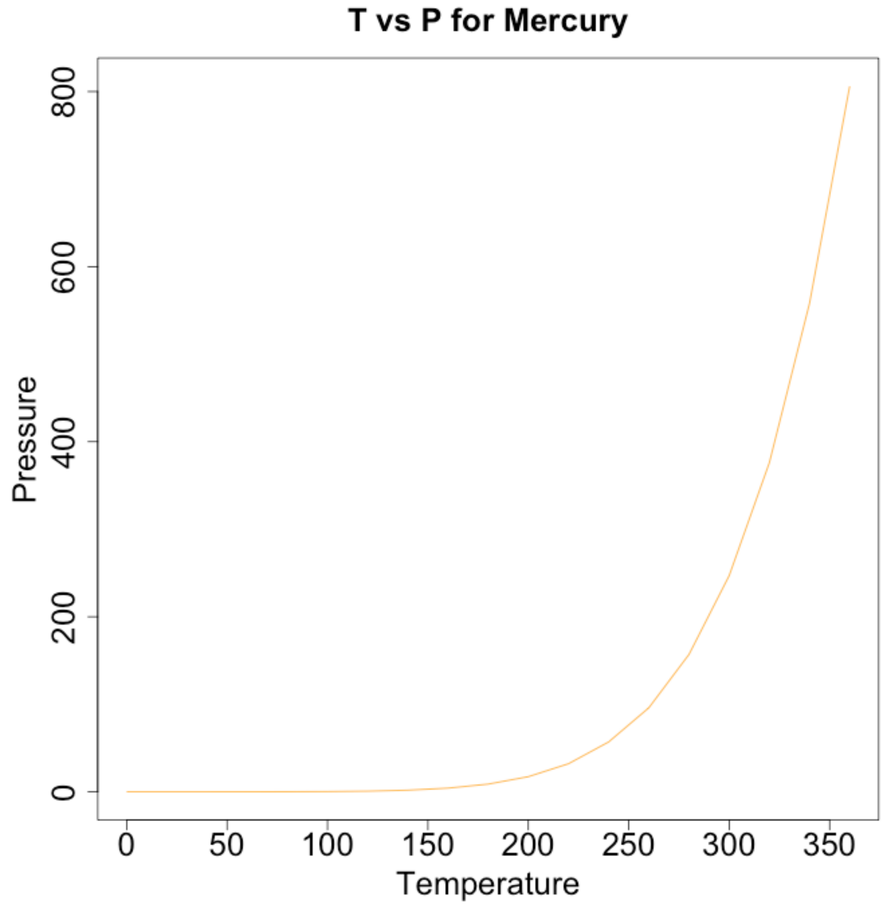
Fancy plot

```
> plot(mercury$temperature, mercury$pressure,
       xlab = "Temperature",      horizontal axis label
       ylab = "Pressure",         vertical axis label
       main = "T vs P for Mercury",   plot title
       type = "o",                plot type
       col = "orange")
```



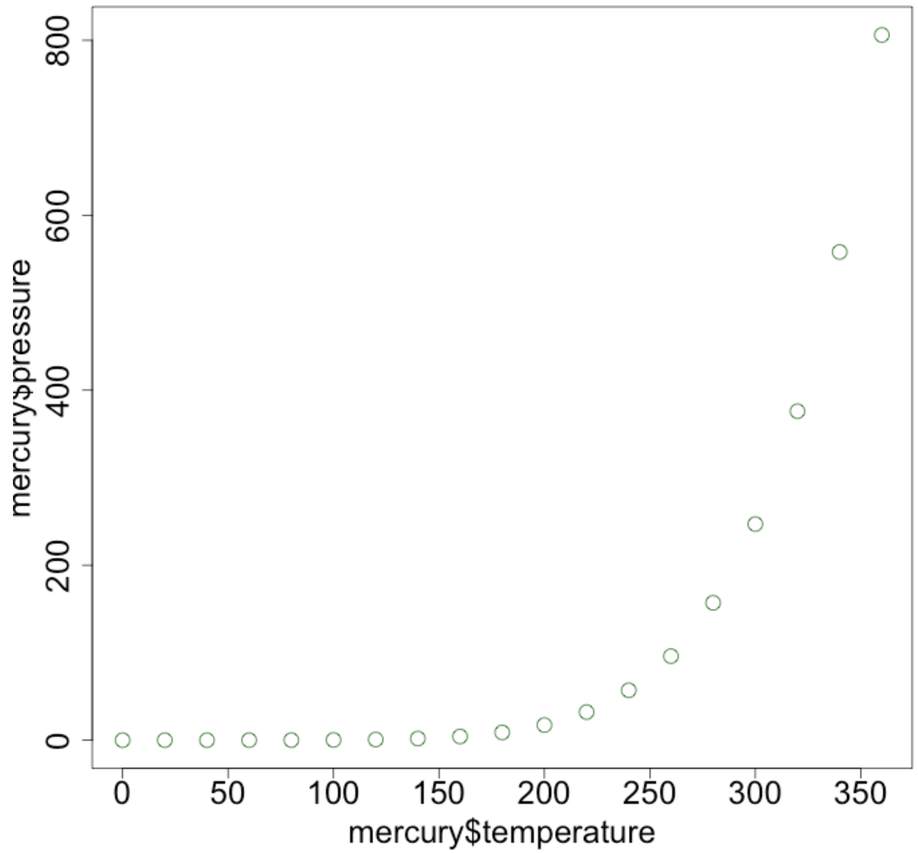
Fancy plot

```
> plot(mercury$temperature, mercury$pressure,
       xlab = "Temperature",      horizontal axis label
       ylab = "Pressure",           vertical axis label
       main = "T vs P for Mercury",       plot title
       type = "l",                        plot type
       col = "orange")                    plot color
```



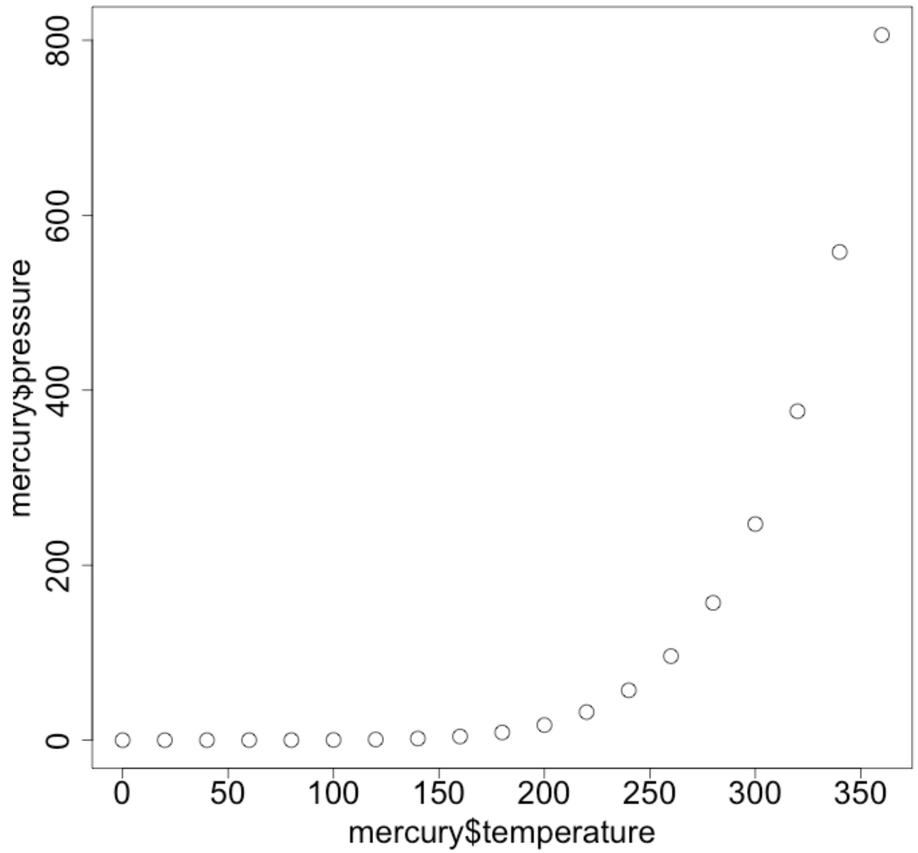
Graphical Parameters

```
> plot(mercury$temperature, mercury$pressure, col = "darkgreen")
```



Graphical Parameters

```
> plot(mercury$temperature, mercury$pressure)
```

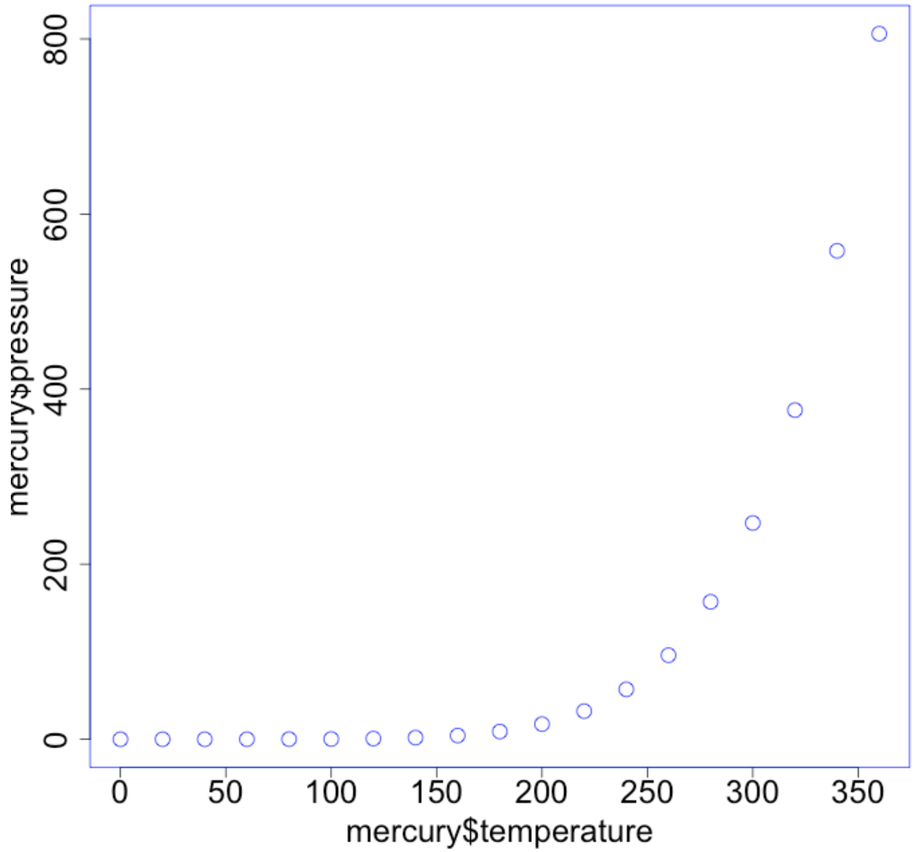


par()

```
> ?par
> par()
List of 72
 $ xlog     : logi FALSE
 $ ylog     : logi FALSE
 $ adj      : num 0.5
 ...
 $ fin      : num [1:2] 8.31 6.89
 $ font     : int 1
 $ font.axis: int 1
 $ font.lab : int 1
 ...
 $ yaxs     : chr "r"
 $ yaxt     : chr "s"
 $ ylbias   : num 0.2
```

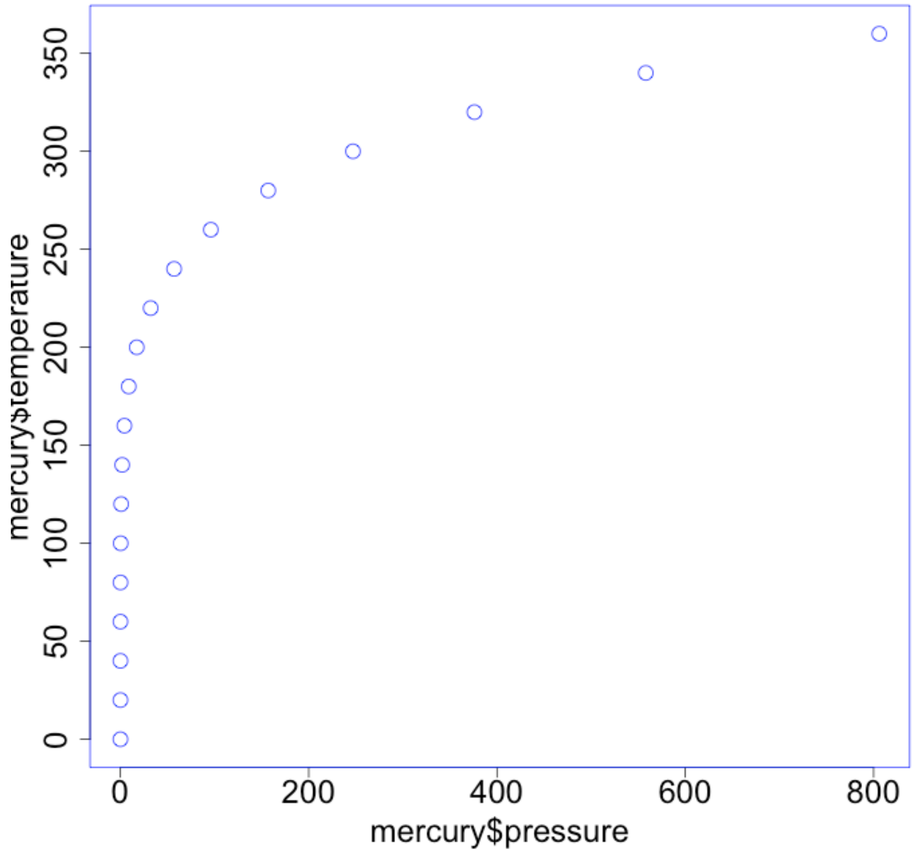
par()

```
> par(col = "blue")
> plot(mercury$temperature, mercury$pressure)
```



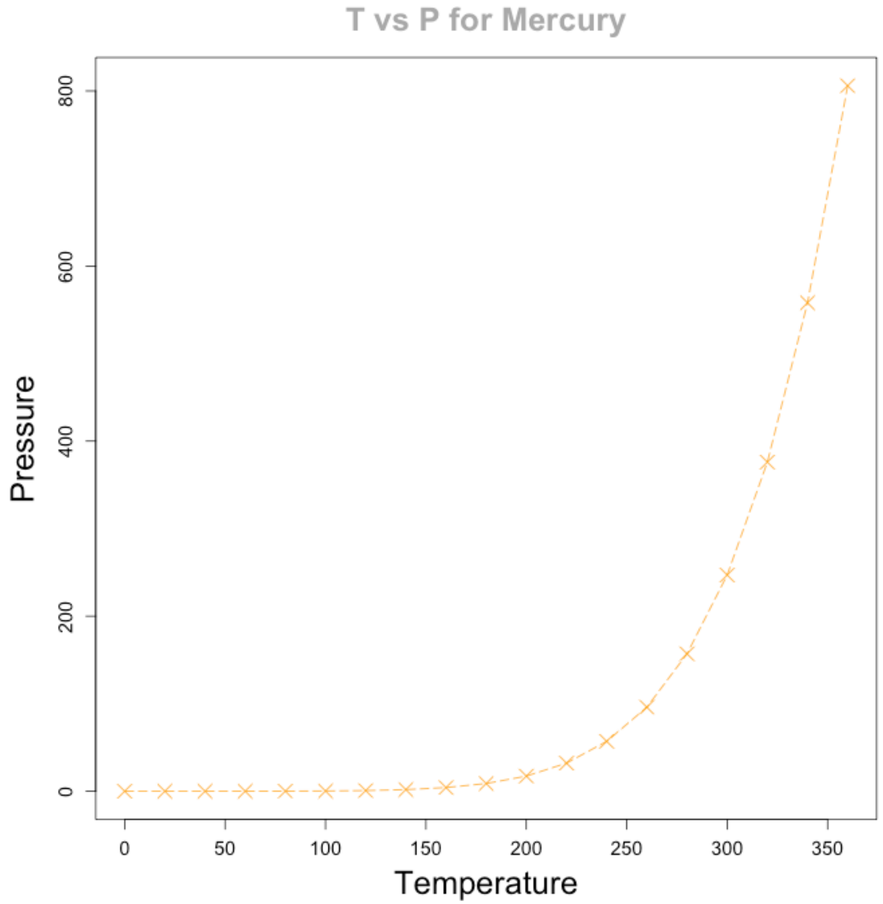
par()

```
> par(col = "blue")
> plot(mercury$temperature, mercury$pressure)
> plot(mercury$pressure, mercury$temperature)
> par()$col
[1] "blue"
```



More graphical parameters

```
> plot(mercury$temperature, mercury$pressure,
       xlab = "Temperature",
       ylab = "Pressure",
       main = "T vs P for Mercury",
       type = "o",
       col = "orange",
       col.main = "darkgray",
       cex.axis = 0.6,
       lty = 5,
       pch = 4)
```



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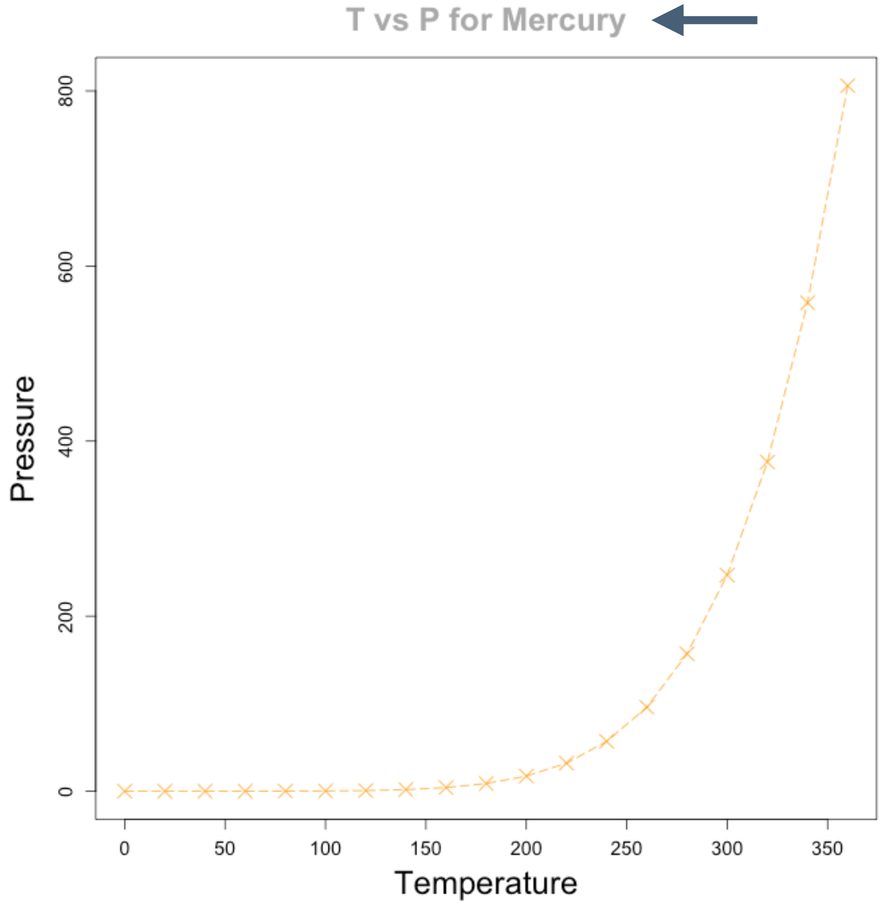
       xlab = "Temperature",
       ylab = "Pressure",
       main = "T vs P for Mercury",
       type = "o",
       col = "orange",
       col.main = "darkgray",
       cex.axis = 0.6,
       lty = 5,
       pch = 4)
```



More graphical parameters

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       xlab = "Temperature",
       ylab = "Pressure",
       main = "T vs P for Mercury",
       type = "o",
       col = "orange",
       col.main = "darkgray",
       cex.axis = 0.6,
       lty = 5,
       pch = 4)
```
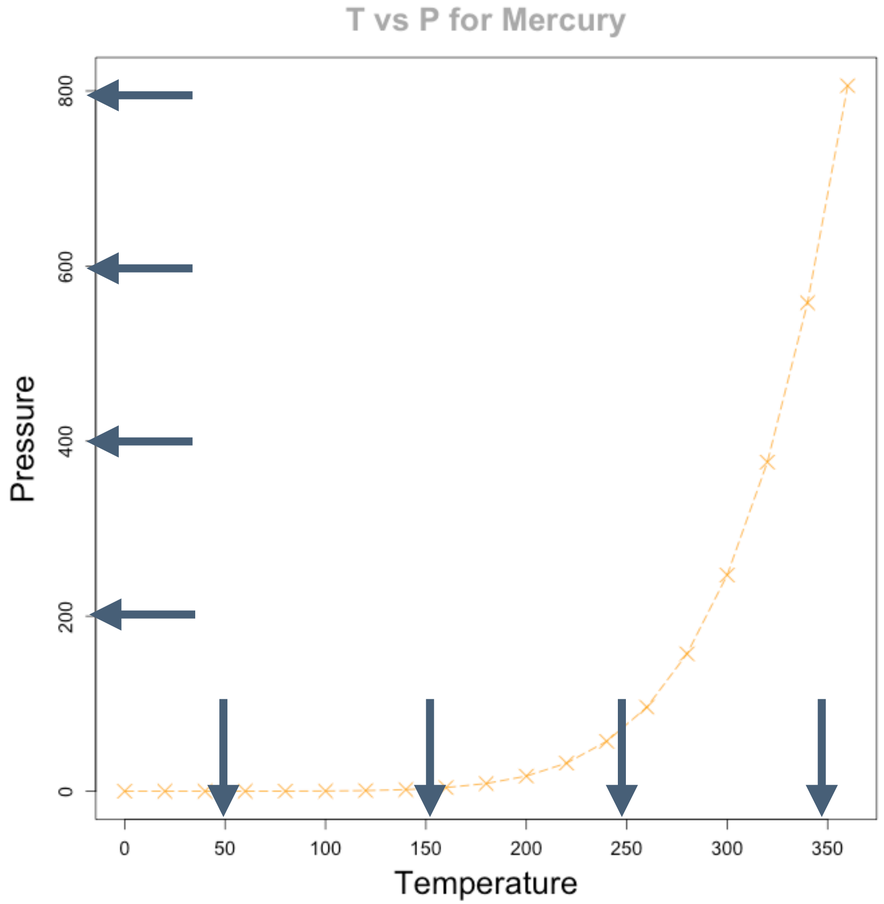
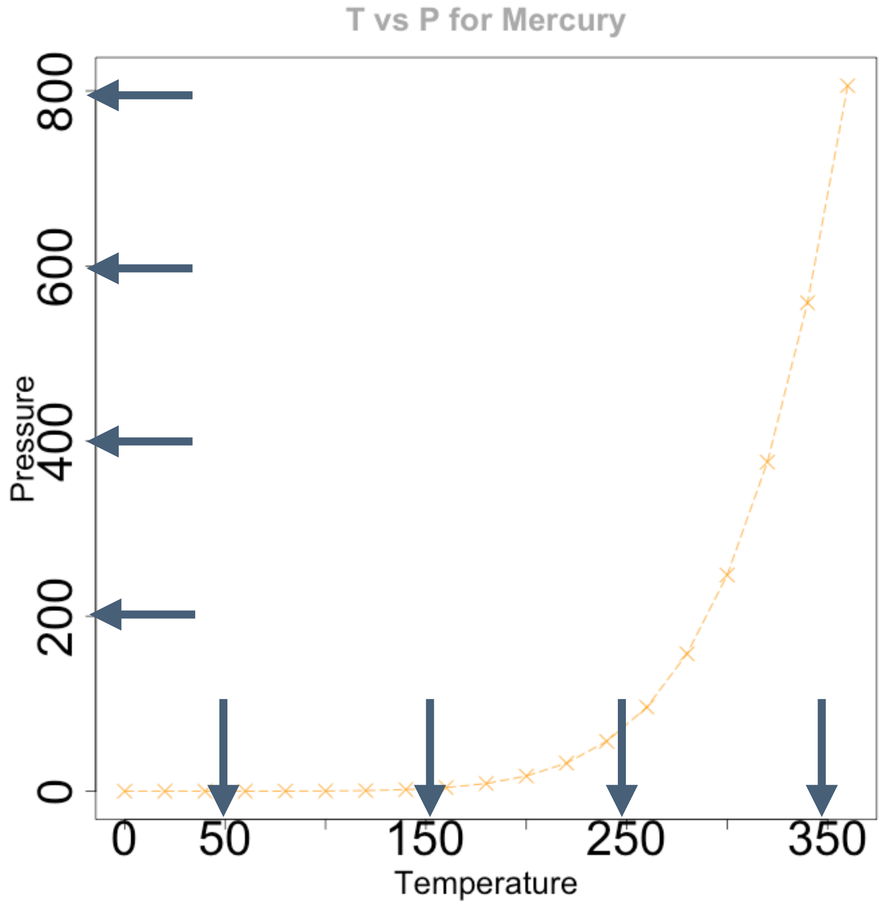



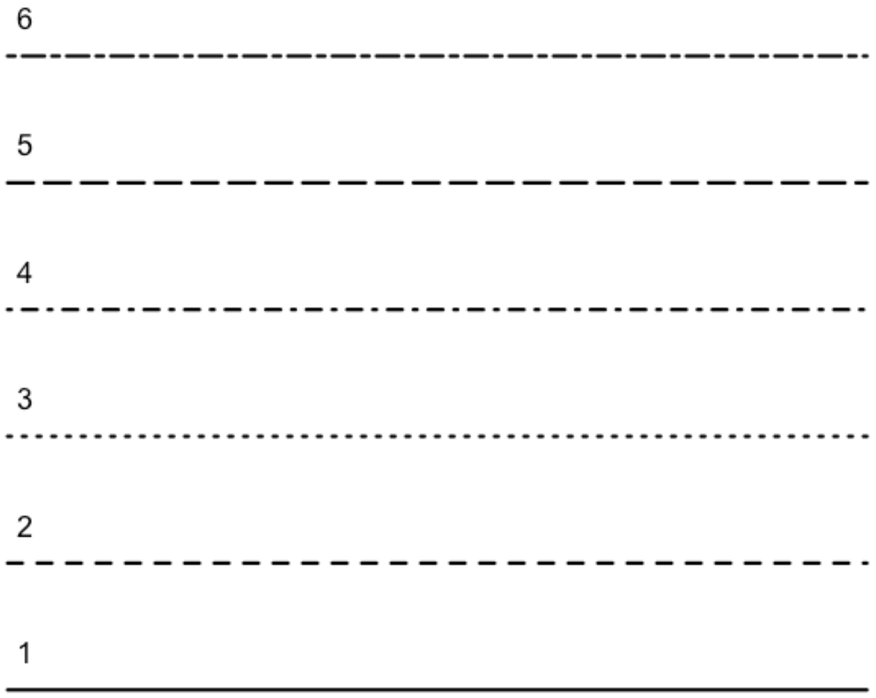
More graphical parameters

```
> plot(mercury$temperature, mercury$pressure,
       xlab = "Temperature",
       ylab = "Pressure",
       main = "T vs P for Mercury",
       type = "o",
       col = "orange",
       col.main = "darkgray",
       cex.axis = 1.5,
       lty = 5,
       pch = 4)
```



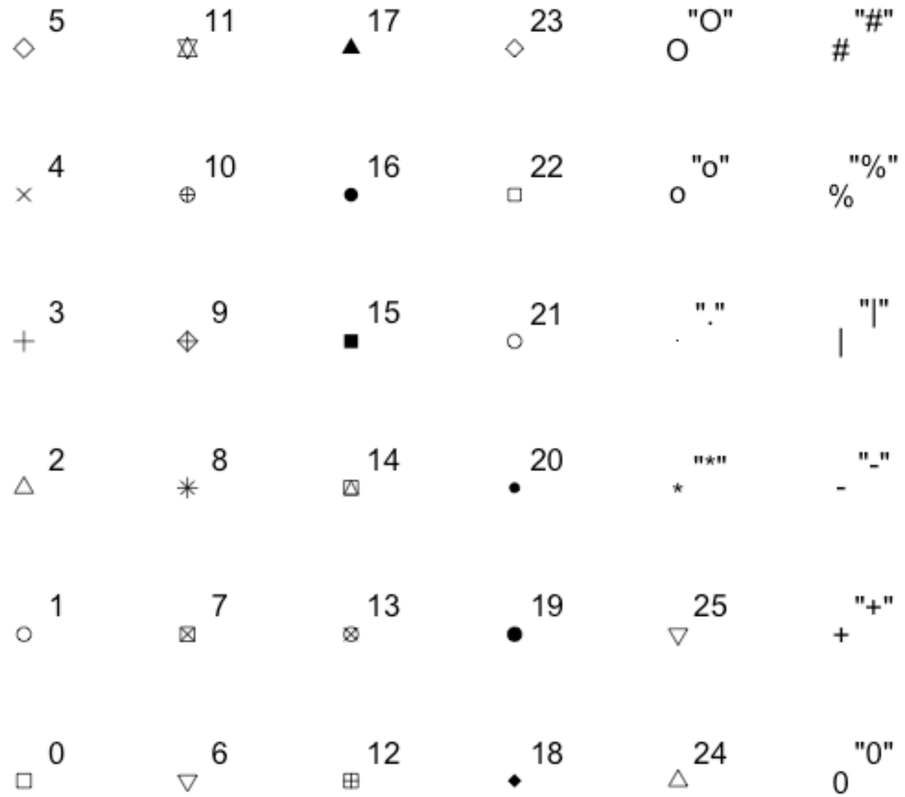
lty: Line Type

```
> plot(mercury$temperature, mercury$pressure,
       xlab = "Temperature",
       ylab = "Pressure",
       main = "T vs P for Mercury",
       type = "o",
       col = "orange",
       col.main = "darkgray",
       cex.axis = 1.5,
       lty = 5,
       pch = 4)
```



pch: Plot Symbol

```
> plot(mercury$temperature, mercury$pressure,
       xlab = "Temperature",
       ylab = "Pressure",
       main = "T vs P for Mercury",
       type = "o",
       col = "orange",
       col.main = "darkgray",
       cex.axis = 1.5,
       lty = 5,
       pch = 4)
```



INTRODUCTION TO R

Let’s practice!