

# HW3\_906470537

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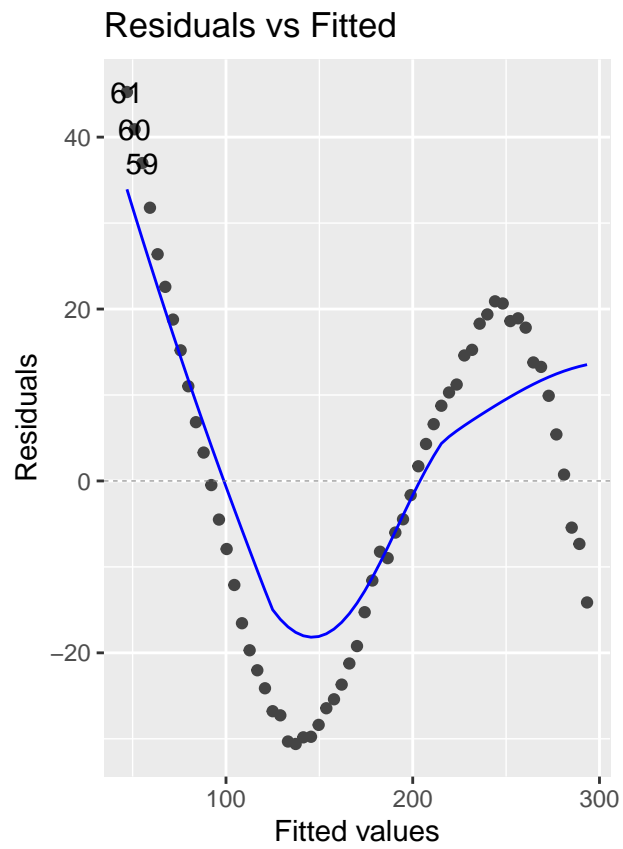
## Problem 1, 2

I saw “Visualize Data” and search more to know how to work with ggplot2.

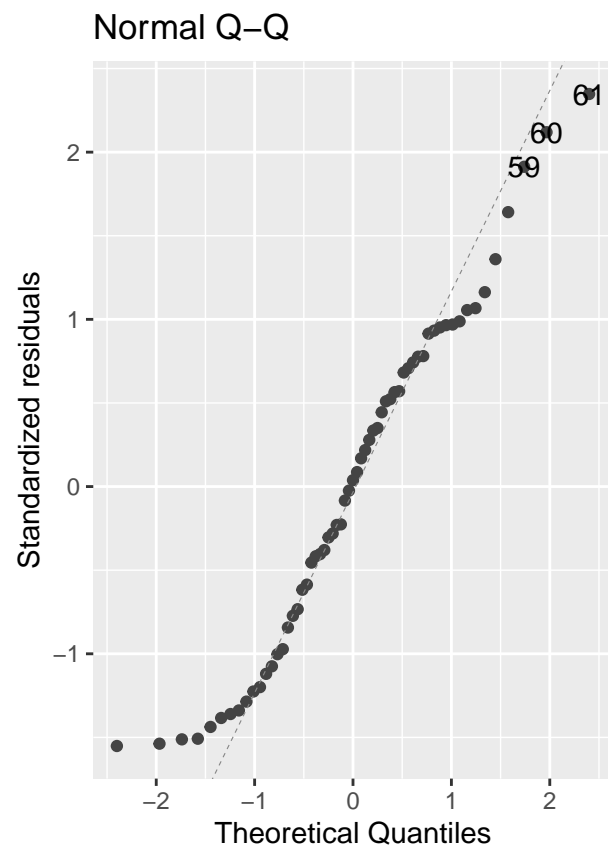
## Problem 3

```
library(data.table)
library(broom)
library(ggplot2)
library(ggfortify)
covid_raw <- fread("https://opendata.ecdc.europa.eu/covid19/casedistribution/csv")
us <- covid_raw[covid_raw$countriesAndTerritories == 'United_States_of_America',]
us_filtered <- us[us$month %in% c(6:7),]
us_filtered$index <- rev(1:dim(us_filtered)[1])
fit<-lm(`Cumulative_number_for_14_days_of_COVID-19_cases_per_100000`~index, data=us_filtered)
fit.diags <- broom::augment(fit)
#library(ggplot2)

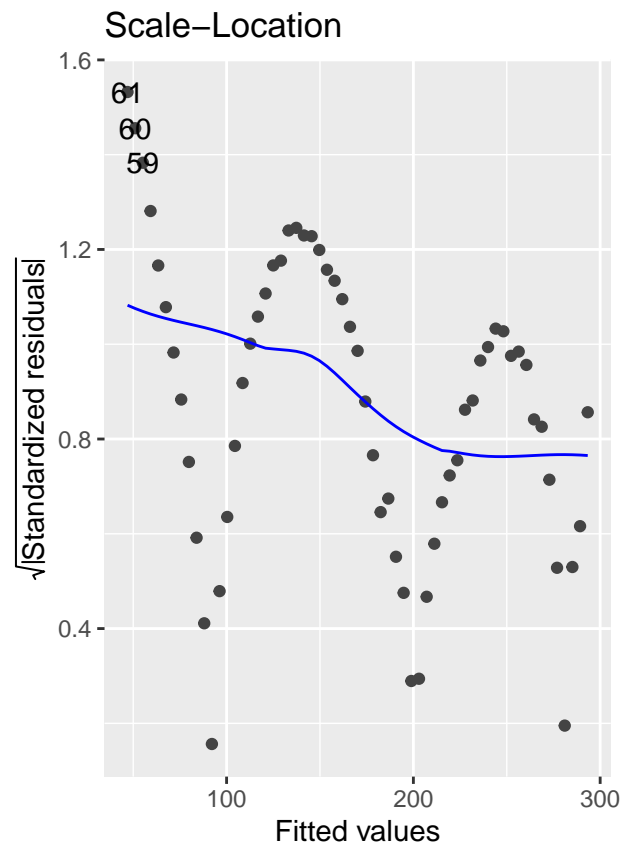
ggplot2::autoplot(fit, 1)
```



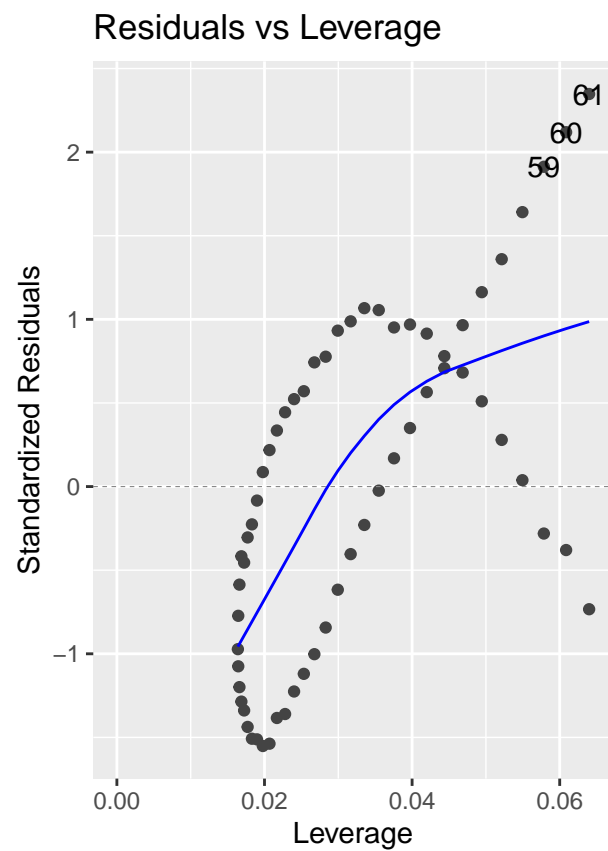
```
ggplot2::autoplot(fit, 2)
```



```
ggplot2::autoplot(fit, 3)
```



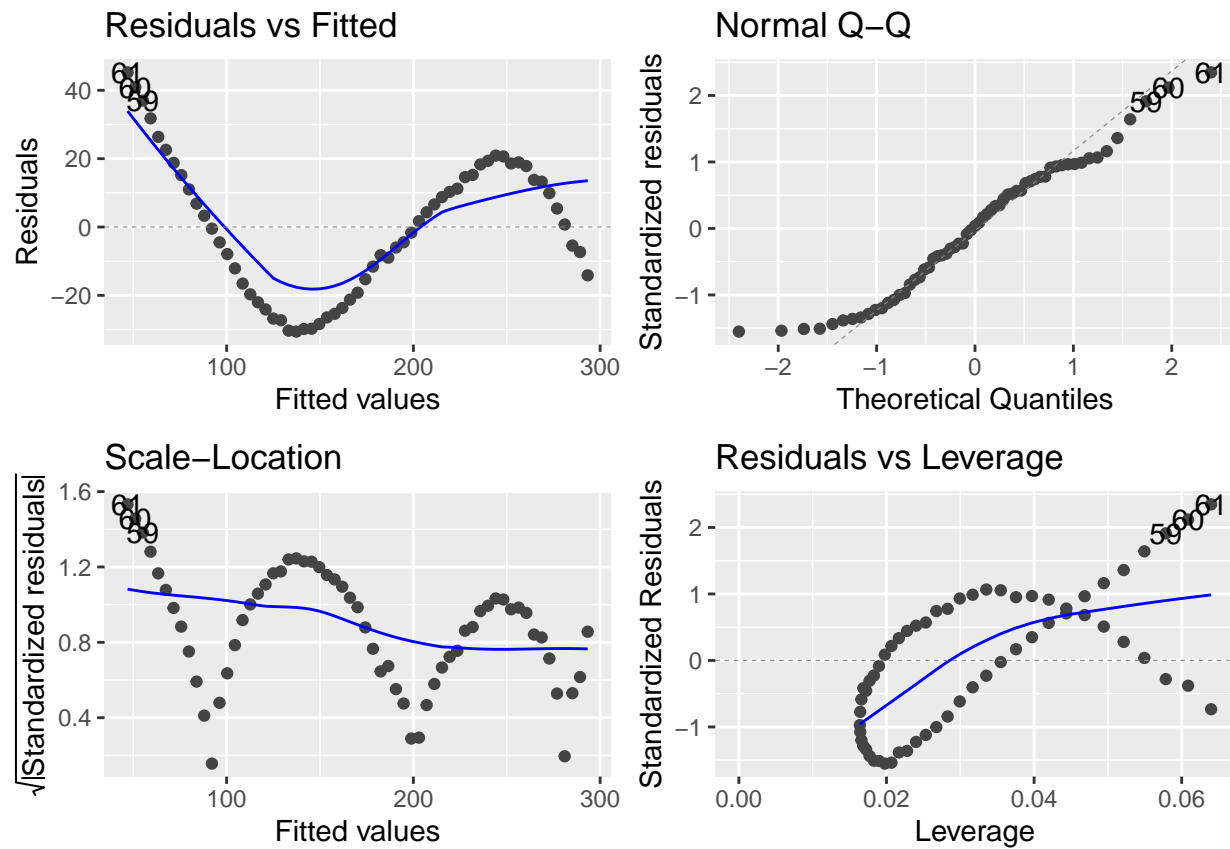
```
ggplot2::autoplot(fit, 5)
```



#### Problem 4

I put the four plots in a single multipanel plot.

```
par(mfrow=c(2,2), mar = c(1,1,1.5,0.5), oma=c(1,1,0,0))
ggplot2::autoplot(fit, c(1,2,3,5))
```



## Problem 5

I knitted this document to pdf and pushed to GitHub.