Homework #6

Note: Use `pm10.csv` file for this homework.

Q1:(20pts) By using all data in in `pm10.csv` file, plot a histogram of all PM_{10} data and mark median on the histogram by a vertical line.

Q2:(20pts) By using the histogram in Q1, decide a maximum PM_{10} threshold and set `NA` the values higher than the threshold. Calculate correlation between stations and plot boxplots of all stations in a single plot. Discuss results in terms of variance and correlation. Which ones are similar?

Q3:(20pts) Establish a linear model between `sta3` and `sta4`. Plot scatter between them and draw the regression line.

Q4:(20pts) Calculate monthly and yearly means for all stations. Plot boxplots using for each month and year using hourly data. Discuss your results.

Q5:(20pts) Calculate means for each hour for all stations. plot results for all stations in a single plot and discuss your results.