library(ggplot2)

library(ggfortify)

library(forecast)

library(tseries)

US\_candy\_production <- candy\_production

# class of dataset is numeric

str(US\_candy\_production)

# Assign more meaningful variable names to columns

colnames(US\_candy\_production)<-c("Period","candy\_production")

# Convert data into time series dataset

attach(US\_candy\_production)

candyts<-ts(US\_candy\_production,c(1972,1),c(2017,8),12)

str(candyts)

## Time-Series [1:548] from 1972 to 2018: 85.7 71.8 66 64.6 65 ...

#EDA anaysis

# summary of data

summary(candyts)

# Check for missing values

sum(is.na(candyts))

# Check the frequency of the time series data

frequency(candyts)

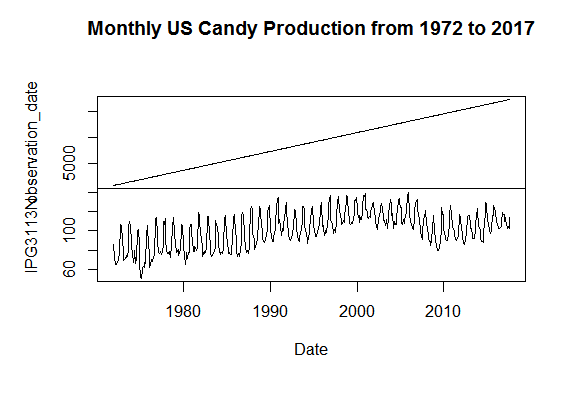
# Check the cycle of the time series

cycle(candyts)

# Plot the raw data using the base plot function

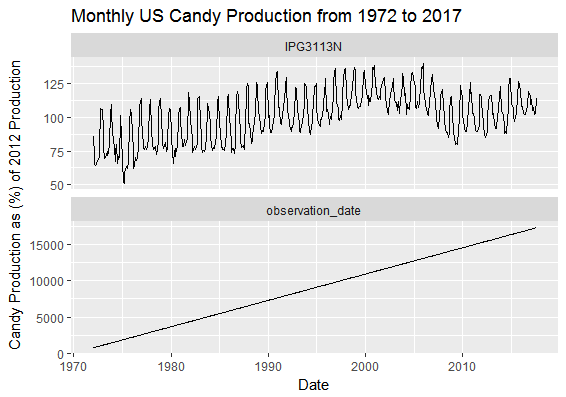
plot(candyts,xlab="Date", ylab = "Candy Production as (%) of 2012 Production",main="Monthly US Candy Production from 1972 to 2017")

1st Graph



# Alternative to ggplot - ggfortify

autoplot(candyts) + labs(x ="Date", y = "Candy Production as (%) of 2012 Production", title="Monthly US Candy Production from 1972 to 2017")



# to check seasonality

boxplot(candyts~cycle(candyts),xlab="Date", ylab = "Candy Production as (%) of 2012 Production" ,main ="Monthly US Candy Production from 1972 to 2017")

