1. (20 points)
   a. (5 points) Create a data frame named Air.Pollution from the data set air_pollution.txt.
      - Download the data to r.
      - The names of the columns should be the same as in the original data set. That is,
        State County, County FIPS Code, 2010 Population
      - Make sure that the column "2010 Population" is of a numeric type.

   b. (5 points) Add one more column to the data frame that you've created. The column contains the amount of PM 2.5 particles in mg/m^3. The column name should be "PM25 (mg/m3)".
      65,NA,92,97,104,66,NA,NA, 124
      Make sure that the new column is numeric.
      Note: Changing the name of a column in a base package can be done as follows.

```
names(dataframe)[names(dataframe)=="old name"] <- "new name"
```

   c. (5 points) Using function rbind() (read the r documentation on the function) add one more row to the data frame
      California, Glenn County, 6021, 28122, 34
      Check the structure of your dataframe using function str()

   d. (5 points) Save the dataframe in a new file called air_pollution_updated.txt.
      - Character elements should not be surrounded by quotes.
      - The set should not include row numbers 1,2,… .
      - Download the file on Canvas.

2. (5 points) Closed interval $[2, 3]$ should be divide into n subintervals of the same width. The total number of endpoints of the subintervals is $n + 1$. Write a function named **end.pnt** with the argument n, that produces the endpoints of the intervals including 2 and 3. You should use **seq()** with option **along=…** .