Learn / Data Science R Basics

Exercise

Scatterplots

We made a plot of total murders versus population and noted a strong relationship: not surprisingly states with larger populations had more murders. You can run the code in the console to get the plot.

```
library(dslabs)
data(murders)

population_in_millions <- murders$population/10^6
total_gun_murders <- murders$total

plot(population_in_millions, total_gun_murders)
```

Note that many states have populations below 5 million and are bunched up in the plot. We may gain further insights from making this plot in the log scale.

Instructions 100 XP

- Transform the variables using the log base 10 transformation
- Plot the log transformed total murders versus population

script.R

Dark Mode

```
# Load the datasets and define some variables
library(dslabs)
data(murders)

population_in_millions <- murders$population/10^6
total_gun_murders <- murders$total

plot(population_in_millions, total_gun_murders)

# Transform population (not population in millions) using the log10 transformation and save to object log10_population
log10_population<-log10(murders$population)
# Transform total gun murders using log10 transformation and save to object log10_total_gun_murders
log10_total_gun_murders<-log10(murders$total)
# Create a scatterplot with the log scale transformed population and murders
plot(log10_population,log10_total_gun_murders)
```

Run Code Submit Answer