

Mean and Median Calculation

Learn / Courses / Introduction to Statistics In Python

← Course Outline →

Daily XP 530

Exercise

Mean and median

In this chapter, you'll be working with the `food_consumption` dataset from 2018 Food Carbon Footprint Index by nu3. The `food_consumption` dataset contains the number of kilograms of food consumed per person per year in each `country` and food category (`consumption`), and its carbon footprint (`co2_emissions`) measured in kilograms of carbon dioxide, or CO₂.

In this exercise, you'll compute measures of center to compare food consumption in the US and Belgium using your `pandas` and `numpy` skills.

`pandas` is imported as `pd` for you and `food_consumption` is pre-loaded.

Instructions

100 XP

- Import `numpy` with the alias `np`.
- Subset `food_consumption` to get the rows where the `country` is 'USA'.
- Calculate the mean of `consumption` in the `usa_consumption` DataFrame, which is already created for you.
- Calculate the median of `consumption` in the `usa_consumption` DataFrame.

Take Hint (-30 XP)

script.py

Light Mode

```
1 # Import numpy with alias np
2 ----
3
4 # Subset country for USA: usa_consumption
5 usa_consumption = ----
6
7 # Calculate mean consumption in USA
8 print(----)
9
10 # Calculate median consumption in USA
11 print(----)
```

↻ Run Code Submit Answer

IPython Shell

Slides

In [1]:

Figure 1: Screenshot showing the task to calculate mean and median of food consumption.

Question

In this chapter, you're working with the `food_consumption` dataset from the 2018 Food Carbon Footprint Index.

This dataset contains the number of kilograms of food consumed per person per year in each country and food category (`food_consumption`), and its carbon footprint (`co2_emissions`) measured in kilograms of carbon dioxide.

****Instructions:****

1. Import numpy with the alias np.
2. Subset food_consumption to get the rows where the country is 'USA'.
3. Calculate the mean of food consumption in the usa_consumption DataFrame.
4. Calculate the median of food consumption in the usa_consumption DataFrame.

Corrected Code Solution

```
# Import numpy with alias np
import numpy as np

# Subset country for USA: usa_consumption
usa_consumption = food_consumption[food_consumption['country'] ==
'USA']

# Calculate mean consumption in USA
print(np.mean(usa_consumption['consumption']))

# Calculate median consumption in USA
print(np.median(usa_consumption['consumption']))
```

Answer Explanation

1. ****Import numpy:**** The numpy library is imported with the alias np to utilize its mean() and median() functions.
2. ****Subset the data for USA:**** The usa_consumption DataFrame is created by filtering rows from food_consumption where the 'country' column equals 'USA'.
3. ****Calculate the mean:**** The np.mean() function computes the average consumption from the 'consumption' column in the usa_consumption DataFrame.
4. ****Calculate the median:**** The np.median() function calculates the middle value of the 'consumption' column, providing a measure of central tendency.