Where's the center of the solar system??!

Description

I will write a program that, given a list of 2D vectors (x, y coordinates), will calculate the mean of the vectors. For our program, we assume that these are planets in our solar system, and we are attempting to find where the "center" of our solar system is 😊

The program will have two, predefined arrays of x and y coordinates representing the position of planets in our solar system. Both arrays will be of the same length, and the length and values will be determined at compile time. To find the x and y coordinates of planet number 0, you would simply need to grab element 0 of the x array and element 0 of the y array.

The program will have a function named mean_array that will calculate the mean of a given array. This function will be called twice to get the mean of the two arrays.

Prototype Code

The following code was written in Python.

Phase1.py

```python
x = [5, 7, 2, -3, 4, 15, 7, 8]
y = [1, 0, -1, 4, 5, 2, -3, 4]

def mean_array(arr, length):
    sum = 0

    # Loop through i=0 to i=length-1
    for i in range(length):
        sum = sum + arr[i]

    return sum / length

x_sum = mean_array(x, 8)
y_sum = mean_array(y, 8)

print(x_sum)
print(y_sum)
```

```
5.625
1.5
```