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COMSC 140 Python

Program Documentation for

As7\_1\_Calculate\_the\_difference\_from\_average\_value

1/ Link  
<https://github.com/DVC-COMSC/assignment-7-1-enduringwriter/blob/main/main.py>

2/ Program Purpose  
This program finds the number in a list which has the greatest absolute difference from the average value of the list.

Assumptions:

3/ Input/Output Description  
Input: list of integers  
Output: greatest absolute difference from the average value

4/ Explanation of All Variables

numbers = list of integers

avg = average of integers

diff = difference between a number and the average

max\_diff = maximum difference

max\_num = number with the greatest difference from the average

5/ Flow Chart  
Start > Input a list of integers > Calculate the average> Initialize variables > Loop through the list and calculate the difference from the average for each number > Update the maximum difference and result if the current difference is greater > Output the number with the greatest difference > End

6/ Lesson Learned  
Learned to work with averages, absolute values, and loops to compare values.

7/ Errors

Misspelled variable numbers as number. Initially outputted max difference rather than max number, but this was not an error – but I did correct it as it was used to test the code.