Logo

STUDENT REPORT

DETAILS

Name

D SUHASINI

Roll Number

3BR23CS040

EXPERIMENT

Title

ARDUINO

Description

Tom is an Arduino Programmer. He has designed a program to run his robocar on a horizontal number line. Initially, the car is parked at: 0. Given an array A of N integers which can be A. B. C... the robocar runs as follows as per the designed program

First the robocar moves A units in specified direction(right in case the integer is positive and left if the integer is negative).

Then robocar first moves A units and then B units in a specified direction.

In the next step, the robocar moves A units. B units, and then C units in a specified direction.

This process keeps on repeating as per the number of integers in the sequence..

Your task is to find and retum an integer value, representing the farthest coordinate reached by the robocar from the beginning to the end of the process.

Sample Input:

1 -2 3 4

Sample Output:

6

Source Code:

```
def find_farthest_coordinate(arr):
  current_position = 0
  max_distance = 0

  for i in range(len(arr)):
    current_position += arr[i]
    max_distance = max(max_distance, abs(current_position))

  return max_distance
arr = list(map(int,input(). split()))
result = find_farthest_coordinate(arr)
print(result)
```

RESULT

5 / 5 Test Cases Passed | 100 %