



# STUDENT REPORT

## DETAILS

Name

ARATHI H M

Roll Number

3BR23CS014

## EXPERIMENT

Title

ARDUINO

Description

Tvm is an Arduino Programmer. He has designed a program to run his rrvbcar 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 rrvbcar runs as follows as per the designed program

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

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

In the next step, the rrvbcar 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 return an integer value, representing the farthest coordinate reached by the rrvbcar 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

3014

2014

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