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| **Ex No: 7** | Array Manipulation |

**AIM**

Populate an array with height of persons and find how many persons are above the average height.

**PRE-LAB QUESTIONS**

1. Define array
2. How do you declare 2D array
3. Name any two library functions used for string handling
4. Mention the operations that can be performed on arrays
5. How do you return an array from a function

**ALGORITHM**

**Step 1:** Start  
**Step 2:**  read the heights of persons in an array ‘A’  
**Step 3:** Find the average of heights of persons  
 avg = sum(A)/ SIZE  
**Step 4:**  Find the number of persons who are above average heights  
 (total)  
**Step 5:** End

**PROGRAM**

#include "stdio.h"

#define SIZE 5

int main**(**void**)** **{**

int A**[**SIZE**];**

int i**,** sum **=** 0**,** total**;**

float avg**;**

**for** **(**i**=**0**;** i **<** SIZE**;** i**++){**

scanf**(**"%d"**,** **&**A**[**i**]);**

sum **+=** A**[**i**];**

**}**

avg **=** sum **/** SIZE**;**

printf**(**"Average height: %f \n"**,** avg**);**

total **=** 0**;**

**for** **(**i**=**0**;** i **<** SIZE**;** i**++){**

**if(**A**[**i**]** **>** avg**)**

total**++;**

**}**

printf**(**"Number of persons above average height: %d \n"**,** total**);**

**return** 0**;**

**}**

**INPUT**

154 123 160 143 168

**OUTPUT**

Average height: 149.000000

Number of persons above average height: 3

**POST-LAB QUESTIONS**

1. Write a C program to count the number of vowels in your name
2. Write a C program to multiply two matrices

**RESULT**

Thus the C program to find the program to Populate an array with height of persons and find how many persons are above the average height was successfully written and executed.