

absoluteSum1D

Write a C function that returns the sum of the absolute values of the elements of a vector with the following prototype:

```
float absoluteSum1D(int size, float vector[]);
```

where size is the number of elements in the vector.

A sample program template is given below to test the function:

```
#include <stdio.h>
#include <math.h>
float absoluteSum1D(int size, float vector[]);
int main()
{
    float vector[10];
    int i, size;

    printf("Enter vector size: \n");
    scanf("%d", &size);
    printf("Enter %d data: \n", size);
    for (i=0; i<size; i++)
        scanf("%f", &vector[i]);
    printf("absoluteSum1D(): %.2f", absoluteSum1D(size, vector));
    return 0;
}
float absoluteSum1D(int size, float vector[])
{
    /* Write your code here */
}
```

Some sample input and output sessions are given below:

- (1) Test Case 1:
Enter vector size:
5
Enter 5 data:
1.1 3 5 7 9
absoluteSum1D(): 25.10
- (2) Test Case 2:
Enter vector size:
6
Enter 6 data:
1 -3 5 -7 9 -2
absoluteSum1D(): 27.00

```
float absoluteSum1D(int size, float
vector[])
{
    int i;
    float sum=0;

    for(i=0;i<size;i++)
    {
        if(vector[i]<0)
        {
            vector[i]=-1*vector[i];
        }
        sum = sum + vector[i];
    }
    return sum;
}
```