

## Answer - Economics students (c)

```
#include <stdio.h>
#include <stdlib.h>
#include <ctype.h>
#include <string.h>
#include <math.h>

int main(int argc, char *argv[])
{
    int n,x;
    x=scanf("%d",&n);
    if(x<0)
    {
        return 1;
    }
    float marks[n];
    for(int i=0;i<n;i++)
    {
        float y;
        x=scanf("%f",&y);
        if(x<0)
        {
            return 1;
        }
        if(y>100 || y<0)
        {
            printf("INVALID INPUT");
            return 0;
        }
        else
        {
            marks[i]=y;
        }
    }
    float mean=0,variance=0,standard_deviation;
    for(int i=0;i<n;i++)
    {
        mean=(mean+marks[i]);
    }
    mean=mean/n;
    for(int i=0;i<n;i++)
    {
        variance=(variance+(((marks[i]-mean)*(marks[i]-mean))/(n)));
    }
    standard_deviation=sqrt(variance);
    int one_stdd=0,two_stdd=0,rest=0;
    for(int i=0;i<n;i++)
    {
        if(marks[i]>(mean-standard_deviation) &&
marks[i]<(mean+standard_deviation))
        {
            one_stdd++;
        }
        if(marks[i]>(mean-(standard_deviation*2)) && marks[i]<(mean+
(standard_deviation*2)))
        {
            two_stdd++;
        }
    }
}
```

```
        else
            {
                rest++;
            }
    }
    printf("%d %d %d",one_std, two_std, rest);
}
```