

Francis Hoang  
2/4/2016  
Calculate Standard deviation

Libraries  
iostream  
cstdlib  
ctime  
cmath

Global Variables  
And Constants  
None

Function Prototypes  
sDevi, getAvg,  
getVar

A

A

Main  
Standard Deviation

Output  
Program  
Description

Set Random Seed

Declare  
yes

Declare and initialize  
s1,s2,s3,s4

B

B

sDevi(s1,s2,s3,s4)

Ask to do  
again

True  
yes = 'y'

Return

sDevi(s1,s2,s3,s4)

avg =  
getAvg(s1,s2,s3,s4)

var =  
getVar(s1,s2,s3,s4 ,

sd = sqrt(var)

Output  
s1,s2,s3,s4,  
avg,sd

Return

getAvg(s1,s2,s3,s4)

(s1+s2+s3+s4)/4.0f

Return

getVar(s1,s2,s3,s4 ,  
avg);

(pow(s1-a,2.0f)+pow(s2-  
a,2.0f)+pow(s3-a,2.0f)+  
pow(s4-  
a,2.0f))/4.0f

Return