/\*Random Numbers Program #3

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Chapter 9

use srand((unsigned) time(NULL)), (rand()%range) + min and looping

to generate an array 20 random #'s from a given min and maximum and find average

and shows how to pass by reference(&-change), value(no &- no change) and by

adress (arrays).

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#include<iostream.h>

#include<stdlib.h>

#include<time.h>

void GetInfo(int &min, int &max);

void CreateArray(int min, int max, int arrnums[]);

float FindAvg(int arrnums[]);

main()

{

int x,num,min,max,range, arraynums[20];

float a;

GetInfo(min,max);

CreateArray(min,max,arraynums);

a=FindAvg(arraynums);

for(x=0;x<20;x++)

{

cout << arraynums[x]<<endl;

}

cout<<a<<endl;

return 0;

}

void GetInfo(int &min, int &max)

{

//get user input

cout << "enter min value: ";

cin >> min;

cout << "enter max value: ";

cin >> max;

}

void CreateArray(int min, int max, int arrnums[])

{

//srand is a function that sets the seed for rand based on time

srand((unsigned) time(NULL));

int range,num;

//find range

range=max-min+1;

//Random number generator and output

for(int x=0;x<20;x++)

{

num= (rand()%range)+min;

//cout << rand()%range;

arrnums[x]=num;

}

}

float FindAvg(int arrnums[])

{

int sum=0;

for(int x=0;x<20;x++)

{

sum=sum+arrnums[x];

}

return sum/20;

}