COSC175 – Array Lab

#include <iostream>

using namespace std;

int main()

{

      int   tests[6]; // array declaration

      int   sum = 0;

      float avg;

      //input  test scores

      cout << " Enter " << 6 << " test scores: " << endl;

      for (int i = 0; i < 6; i++)

      {

            cout << "Enter Test " << i + 1 << ": ";

            cin >> tests[i];

      }

      return 0;

}

1. Type in the above program as array1.cpp. Add a comment to include your name and date. Compile and run. Draw a picture showing what the array looks like in memory.
2. Add code to print the first test score. Add the following comment://2. Print the first test score
3. Add code to print the last test score. Add the following comment://3. Print the last test score
4. Add the code to print all of the test scores. Add a comment: //4. Print all scores
5. Add code to sum the test scores. Print the sum. Add a comment: //5. Sum all scores
6. Add code to calculate and print the average test score. Add a comment: //6. Calculate the average
7. Now add code so an average calculation takes place in a function. Add the following function and the appropriate call to output the average a second time (add a comment: //7). You will also need to add a prototype. Run. Copy and paste the code and output you have up to now in a word document.

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

void CalcAvg(int tests[], int numTests/\* must be > 0 \*/, float& avg)

{

      int sum=0;

      for (int i = 0; i < numTests; i++)

      {

        sum = sum + tests[i];

      }

      avg = (float)sum/numTests;

}

Now change the program as follows:

1. Instead of using the number 6, change the program to use a constant called MAX\_TESTS. Declare the constant. Add a comment //8. Note that you should now be able to work with any size array by changing just one number in your program.
2. Submit your program and output from after #7 and again from after #8.