C++ functions, array, pointers

# Calculator menu.

The program will prompt the user to choose the operation choice (from 1 to 5). Then it asks the user to input two integer vales for the calculation. See the sample below.  

MENU    
          1. Add    
          2. Subtract    
          3. Multiply    
          4. Divide    
          5. Modulus    
Enter your choice: 1    
Enter your two numbers: 12 15    
Result: 27    
     
Continue? y    
     
The program also asks the user to decide whether he/she wants to continue the operation. If he/she input ‘y’, the program will prompt the user to choose the operation gain. Otherwise, the program will terminate.

# Write a C++ program that will prompt the user to input ten integer values

The program will display the smallest and greatest of those values. It also displays the value that occurs the most.

# Write a C++ program (using function) to sort 10 integer values

# Pascal triangle

This is another classic **C++ exercise** about using two-dimensional array of C++. By using two-dimensional array, write C++ program to display a table that represents a Pascal triangle of any size. In Pascal triangle, the first and the second rows are set to 1. Each element of the triangle (from the third row downward) is the sum of the element directly above it and the element to the left of the element directly above it. See the example Pascal triangle(size=5) below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 |  |  |  |  |
| 1 | 1 |  |  |  |
| 1 | 2 | 1 |  |  |
| 1 | 3 | 3 | 1 |  |
| 1 | 4 | 6 | 4 | 1 |

# Pointer : max value

By using C++ pointer, write a C++ program to find the max of an integral data set. The program will ask the user to input the number of data values in the set and each value. Then your program will show the max of the data set. See example below.  Your C++ program will use a function that accepts the array of data values and its size. The return from the function is the pointer that points to the max value.

  Enter number of data values: 3

  Enter value 1: 21

  Enter value 2: 12

  Enter value 3: 4

  The max is 21.

  Result: 2/9

# Write a program to accept five integer values from keyword.

The five values will be stored in an array using a pointer. Then print the elements of the array on the screen.

# Write a C++ function to sort an array of ten integer values in ascending order.

The function will accept two arguments-- a pointer that points to the array and the array size. The function returns a pointer that points to the sorted array.