Median Function – In statistics, the median of a set of values is the value that lies in the middle when the values are arranged in sorted order. If the set has an even number of values, the median is the average of the two middle values.

Your program should start with two arrays of integers containing the following values:

Even numbered array: 17 32 45 68 99 101 67 89 22 27

Odd numbered array: 17 32 45 68 99 101 67 89 22

Using a sort function of your choice, first sort the arrays. NOTE: you may use the Standard Template Library sort function or your own sort function. To use the STL sort:

Add #include <algorithm> to your program

sort (*arrayname, arrayname + size of array*) (beginning and ending elements)

Then, write a function that determines the median of a sorted array. The function should take an array of numbers and an integer indicating the size of the array and return the median of the values in the array. The same function should be called twice – once for the even array and once for the odd array.

Your program should also have a printArray function that can be used to print the sorted array. (It should be called twice, once for each array). It should be passed the array and its size.

Input validation – none.

Modularity – In addition to the main function, your program should have a sort function, the median function, and the printArray function.

# Sample Output:

**Median of the odd array:**

**17 22 32 45 67 68 89 99 101**

**is 67**

**Median of the even array:**

**17 22 27 32 45 67 68 89 99 101**

**is 56**

Other Requirements – When an array is passed to the median and printArray functions, it should be passed using pointer notation. Within each of these two functions, the array should be referred to by pointer notation. In other words, use \*(arr + n) instead of arr[n].