Programming Assignment #5
Summer 2013
CSc 3210
Due Tuesday, July 30th at 11:59 pm (late deadline – August 2nd at 11:59 pm)

Write an efficient program to perform the following for an array of positive integers:

1. Ask the user to enter in an array of at most 20 positive decimal integers. They will enter one at a time (type in a number followed by the enter key) and indicate the end of the array by entering in 0. You should declare space to store this array of word size elements.
2. Call a function that is passed a pointer to the array and it prints out the length of the array.
3. Call a function that is passed a pointer to the array and determines if the array is a palindrome or not. The function should print out a statement accordingly.
4. Ask the user to enter in a positive integer, referred to as threshold.
5. Call a function that is passed a pointer to the array, the threshold value, as well as a pointer to a second array of word size elements. The function should copy elements from the original array that are larger than the threshold to the new array.
6. Call the function from step 2 to print out the length of the new array.
7. Ask the user if they want to repeat the process or quit.

Sample output: (#s entered are shown on the same line and comma separated to save space)

Please enter in an array of at most 20 positive integers: 5, 678, 2390, 13, 55, 817, 99, 0
The length of the array is 7 elements.
The array is not a palindrome.
Please enter a positive integer: 64
The length of the array is 4.
Would you like to repeat for a new array (y/n): y

Please enter in an array of at most 20 positive integers: 5, 678, 83, 914, 77, 914, 83, 678, 5, 0
The length of the array is 9 elements.
The array is a palindrome.
Please enter a positive integer: 100
The length of the array is 4.
Would you like to repeat for a new array (y/n): n
Goodbye

Note: Do not worry about validating user input. You can assume that the rules will be followed for testing.