BIL111 - Programming
Lab 7: Arrays

Problem 1: Given an input of integer exam scores, such as:

```
Enter a grade (-1 to quit): 80
Enter a grade (-1 to quit): 90
Enter a grade (-1 to quit): 70
Enter a grade (-1 to quit): 70
Enter a grade (-1 to quit): 80
Enter a grade (-1 to quit): 60
Enter a grade (-1 to quit): 80
Enter a grade (-1 to quit): 80
Enter a grade (-1 to quit): -1

Histogram of the grades:

60: *
70: **
80: ****
90: *
```

Write a program that will print a histogram of stars indicating the number of students who earned each unique exam score. Assume that an exam score can have a value between 0 and 100 (inclusive).

Problem 2: Write a function called that accepts an array of integers and size of array as a parameter and returns the *longestSortedSequence* length of the longest sorted (nondecreasing) sequence of integers in the array. For example, in the array $\{3, 8, 10, 1, 9, 14, -3, 0, 14, 207, 56, 98, 12\}$, the longest sorted sequence in the array has four values in it (the sequence -3, 0, 14, 207), so your function would return 4 if passed this array. Sorted means nondecreasing, so a sequence could contain duplicates. Your function should return 0 if passed an empty array.