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Pledge: I pledge my honor that I have abided by the Stevens Honor System.

1) Consider an array containing the following 40 integers:

   5 2 4 4 0 1 6 7 3 1 1 0 5 1 5 4 4 5 7 0 6 1 0 7 5 2 7 6 5 3 7 0 5 5 7 1 1 2 6 5

   How many counters does CountingSort need to sort this array: **5 + 7 + 3 + 2 + 4 + 9 + 6 = 40**

   Give the value of each counter after the array of counters has been fully initialized:

   0: 5; 1: 7; 2: 3; 3: 2; 4: 4; 5: 9; 6: 4; 7:6

2) Consider an array containing the following 32-bit integers (written as hexadecimal values to save space):
   4EC1EEA9
   520B6E78
   1E90D74E
   52DB6E42
   5F05EF13
   74284442
   794E8117
   55526E42

3) Imagine you are using a version of RadixSort that sorts on one byte at a time (so two hexadecimal digits) using a stable version of CountingSort. Write the content of the array (vertically, as above) after each of the four runs of CountingSort:

After first	After second	After 3rd	After 4th
5F05EF13	74284442	5F05EF13	1E90D74E
794E8117	52DB6E42	520B6E78	4EC1EEA9
52DB6E42	55526E42	74284442	520B6E78
74284442	520B6E78	794E8117	52DB6E42
55526E42	794E8117	55526E42	55526E42
1E90D74E	1E90D74E	1E90D74E	5F05EF13
520B6E78	4EC1EEA9	4EC1EEA9	74284442
4EC1EEA9	5F05EF13	52DB6E42	794E8117