Name: _____   Date: _____

Pledge: _____

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: _____

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

   _____

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

   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: