CSE131 Quiz 7
Arrays
October 26, 2007

1. Write a method named histogram with the following specification.
   Parameters: limit, a non-negative integer
data, an array of integers containing values in the range 0 to limit-1
Return value: a new array where each slot i contains the number of times the value i appears in data
Example: If the input is 5 and [2 4 1 2 0 1 1 4], the return value would be [1 3 2 0 2]
because 0 occurs once in data, 1 occurs three times, 2 occurs twice, 3 never occurs,
and 4 occurs twice.

2. Write a method named checkerboard with the following specification.
   Parameters: grid, a square two dimensional array of booleans (that is, an array of arrays of booleans)
Effect: Fill the grid with values such that:
   ▪ grid[0][0] is false,
   ▪ every entry has a different value from its up/down/left/right neighbors
   ▪ every entry has the same value as its diagonal neighbors.
Example: If the given array has 3 rows of 3 elements, the result would be
   {{false, true, false},
    {true, false, true},
    {false, true, false}}