PREFACE: Getting copies of necessary files

To begin this exercise, please copy a set of files into your own
account, by executing the following command from your private
directory.

      cp -R /home/faculty/goldwasser/public/files .

This will create a subdirectory, files, which you may use. Relevant
files for this project are:

  TallySheet.py   --- defines the TallySheet class.

  FileUtilities.py --- Some convenient functions for opening files.

  CountScores.py   --- A program which relies on TallySheet to read
                         numeric scores and generate a report.

  scores.txt   --- A simple data file which matches the examples
                         shown below.

CHALLENGES: For practice this week, let's work individually on the
following challenges. The farther you get, the better.

The TallySheet class has a function, writeTable, which takes the
internal data and writes it to the file in a prettier format. In
particular, the current implementation of that function writes the
data as:

      Value Count Percent
      ----- ------ -------
          0   37   3.70%
          1   50   5.00%
          2   49   4.90%
          3   42   4.20%
          4   57   5.70%

Your goal will be to augment this function to produce additional
visualizations of that data.   Rather than deleting the code which is
already there, please add additional code so that the output files
contains the original table and more.

Format 2

Similar to original, but this time the count should be represented as
an ascii 'bar chart' with an asterisk for each value. (the percentage
information is to the left)

    0:   3.70% ***********************************
    1:   5.00% **
    2:   4.90% ***
    3:   4.20% **
    4:   5.70% ***

```
Format 3
--------

Output the same data, but this time aligned more horiztonally as:


    Value:        0       1       2       3       4
    Count:       37      50      49      42      57
    Percent:  3.70%   5.00%   4.90%   4.20%   5.70%



Format 4
--------
This time a horizontal version of the bar chart.  Try to pick a style
which is most helpful for the user.  For example:

  -- use the maximum count as a guideline to determine the height of
     the chart

  -- place axis markers at the left to show the frequency count for
     every 10

  -- place axis markers at the bottom of the chart to clearly
     identifiy which value is being represented by a given column.



            *
            *       *
            *       *
  60        *       *       *
            *       *       *
            *       *      **
        *   *       *      **
        *   *      **      **
        *   *      **      **
        *   *      **      **
        *   *      **      **
        *  **      **      **
        *  **      **      **
  50 *  *  **      **      **
     ** *  **      ***     **
     ** *  **      ***     **
     ** *  **      ***    ***
     ** *  ***     ***    ***
     ** *  ***     ***    ***
     ** *  ***     ***    ***
     ** *  ***     ***    ***
     *****  ***     ***    ***
     *****  ***     ****   ***
  40 *****  *********    ***
```