Interactive table pseudocode

The idea for this project comes from chapter 6 of *Hard Math For Elementary School* by Glenn Ellison (2013).

Objective: Create an interactive multiplication table that provides hints for solving problems.

* Create a text file with every hint for the multiplication table.
* Create a function that turns the text file into a dictionary:
  + The text file is in the following format:

7\*8:The digits for 56 = 7×8 are all in order.

2\*0[[1]](#footnote-1):Anything times 2 is the same as that number plus itself. For example, 18×2 is the same as 18 + 18, which is 36.

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* + Read the lines of the file.
  + For each line, split it across the : (colon).
  + Add the key (left of the : ) to the value (right of the : )
* Make a function that the buttons can respond to with two parameters (x and y):
  + First of all, make x and y into a list and reverse-sort them so the higher number comes first.
  + Use .get() to get the hint for this number. If there is no hint, do nothing.
  + If there is a hint, show it in a message box.
* Create the buttons.
* Use two for loops to iterate over the xs and the ys.
  + If x or y is equal to 0, then make a gray button and set it to the number times 1.
  + If x and y are equal to 0, then make a gray button and set it to ×.
  + Otherwise, make a white button and set it to x times y.
  + Display the buttons using .grid().

1. This is a reference to the indicator rows of the multiplication table. [↑](#footnote-ref-1)