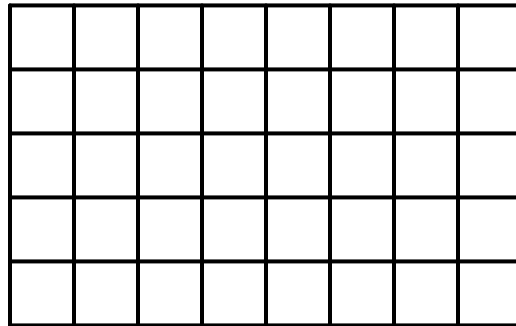


Lecture 18 Activity

COSC 225: Algorithms and Visualization, Spring 2023

Consider the problem of typesetting the phrase TODAY WE WILL TRY TRY AGAIN as a very small paragraph in a monospace font. That is, every character has exactly the same width (including whitespace). We wish to write the phrase in a text block whose width is only 8 characters. In the grid below, typeset the the phrase using the greedy line breaking procedure we defined in the previous lecture.



The *excess* of a line is the amount of trailing space in the line, and the *penalty* of a line with excess x is x^2 . The *total penalty* is the sum of the penalties of all but the last line in the paragraph. What is the total penalty of the paragraph you drew above?

In the space below, typeset the same phrase as above in such a way that the total penalty is smaller than the penalty of the greedy line breaking you used above.

