

This is due at 9:59 AM on the morning of Friday, May 7. You will need to submit to GradeScope. For grade purposes, this is worth half of one reinforcement exercise set. The purpose of this is to help prepare you for lecture on that day. This should not take you more than a dozen minutes to complete.

The **Edit distance** problem is as follows. We are given two strings (not necessarily of equal length). We want to convert the first string to the other by a sequence of insertions, deletions, and substitutions. The **cost** is the number of operations we perform.

For example, if we want to convert FOOD to MONEY, we could do this:

FOOD \rightarrow MOOD \rightarrow MOND \rightarrow MONED \rightarrow MONEY

One way to visualize this is by alignment:

F	O	O		D
M	O	N	E	Y

The edit distance between the strings “algorithm” and “rhythm” is six. That is, there is a sequence of six insert-a-character-, delete-a-character, and substitute-a-character operations that can change the string “algorithm” to the string “rhythm.” Find this sequence. There are multiple correct answers to this; you need only find one.