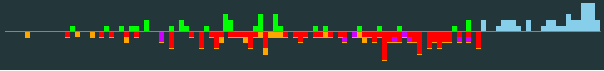
A: Ambagaata

Problem author: Mike de Vries



Problem: Given: dictionary with n words, messages where all vowels except maybe `y` are replaced by `a`. At most 4 letters per word are a `y`. Determine for each message whether

- it corresponds to a unique message consisting of words from the dictionary, or
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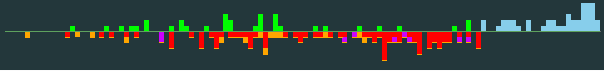

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Setup: For each word in the input, replace all vowels with a and if the word contains Y times the letter y, generate all 2^Y possible ways to replace a y with an a or not.

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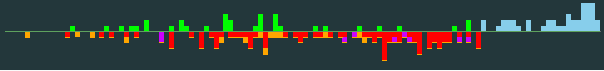

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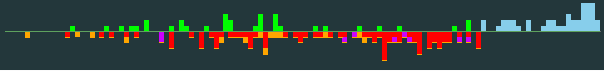

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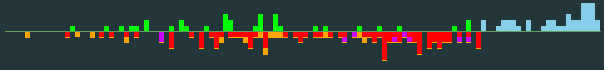

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Solution: Go over all messages and use the map to determine the translation, or that the message is impossible (if a string in the message is not in the map) or ambiguous.

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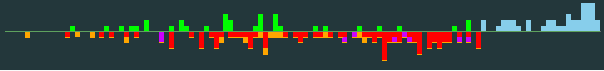

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Pitfall: Messages with an ambiguous word can become impossible due to a later word.

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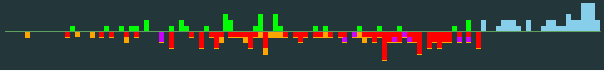

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Running time: $\mathcal{O}(2^Y D + M)$, where D is the total length of words in the dictionary, M is the total length of the messages, and Y is the maximum number of ys in a single word.

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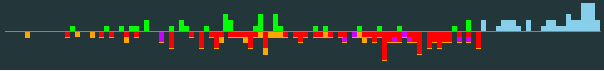

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Statistics: 176 submissions, 33 accepted, 43 unknown