

# 2009 Solutions

## (B) Spelling Tutor

The spelling tutor computes the EDIT DISTANCE between the given word spelling and the correct spelling. We use the standard definition of operations required for converting one of the two given strings into the other, where each operation is one of the following three:

- Removal of a letter.
- Insertion of a letter (anywhere in the string).
- Replacement of a letter with (any other) letter.

The spelling tutor converts the edit distance into a comment using the following scheme:

DIST	COMMENT
0	no comment; correct
1	almost right
2	quite close
3	a bit confusing
4	very confusing

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1	almost right
2	quite close
3	a bit confusing
4	very confusing

The examples given in the problem do NOT show comments for the edit distance of 5 or more, because Christopher Robin never makes so many mistakes, not even in long and delicate words.

The edit distances and related comments for the given misspellings of "typo" are as follows:



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MISSPELL	DIST	COMMENT
oooo	3	a bit confusing
opyt	4	very confusing
pyto	2	quite close
typ	1	almost right
typa	1	almost right
typotypo	4	very confusing

The spelling tutor computes the EDIT DISTANCE between the given word spelling and the correct spelling. We use the standard definition of the EDIT DISTANCE; that is, this distance is the minimal number of operations required for converting one of the two given strings into the other, where each operation is one of the following three:

