6697 Homework Evaluation

Mr. Spell is in charge of assigning homework to his elementary students, which asks them to memorize vocabulary in the text book. In order to automate the homework assignment process, he found a computer program from Internet able to randomly erase a substring from any text. The students are then asked to fill in the missing text. However, he is unable to evaluate the answers returned from students. It is because he does not know which substring the program erased from the text. In addition, the filled substring is often mispelled when returned from the students. Therefore, for each substring returned, he has to manually find its most similar substring in the original text. After aligning them letter-by-letter, the homework is evaluated using the following scoring rule:

1. If a letter in the student's substring matches one in the text, it gets +8 points.

2. If a letter in the student's substring mismatches one in the text, it gets -5 points.

3. If a letter is inserted or deleted in the student's substring (in comparison with the text), it gets -3 points.

4. Extra -4 points are given to each group of consecutive inserted letters and group of consecutive deleted letters.

5. These scoring rules are only applied over the student's substring.

For instance, given a text "Whatagreatislandtovisit" and a returned substring "grtisllamd", the substring will be assigned 42 points according to the following alignment. You are asked to write a scoring program that helps Mr. Spell assign a highest score for each text and substring.

Technical Specification

1. The length of text is between 1 and 100.

2. The length of student's substring is between 1 and 50.

3. Each letter in the text and student's substring is restricted to the standard alphabet ('a' to 'z' and 'A' to 'Z').

4. The upper and lower cases of the same letter are considered as mismatch.

Input

Input will consist of a series of lines. The first line contains a positive integer standing for the number of test cases. Each following line stands for a test case. Each line of a test case contains two strings separated by a white space. The first string is the text, and the second string is student's substring.

Output

Each line of the output corresponds to the output of each test case. Each line will consist of an integer, which is the best score of the returned substring aligned to the text using the above scoring rules.

Sample Input

```
2
Whatagreatislandtovisit grtisllamd
Wehaveagreattime hagreet
```

Sample Output

```
42
30
```