

7263 Today Is a Rainy Day

Today is a rainy day. The temperature is apparently lower than yesterday. Winter is coming. It always leaves people feeling fatigued and tired.

Lee hasn't prepared for winter yet. As he wakes up this morning, he looks out of the window. Yesterday's shining sunlight can no longer be seen. It is dark outside. The sky looks so heavy that it may collapse down at any moment. Lee gets out of his bed, shakes his head slightly to make himself more awake. But it's of no use for him. Then he goes to the restroom and washes up.

Lee has a class in fifteen minutes. If he sets out immediately, he may get to the classroom on time. But he is not in the mood to do so. He decides to skip class and does something more interesting to train his mind.

He takes out a draft paper and writes a list of digits using a dice. It is obvious that the digits are all between 1 and 6. And then he applies two kind of modifications to the digits. The first kind is to modify one digit into another. The second kind is to modify one kind of digits into another. For example, he can modify "12123" to "12121" using the first kind of modification, or modify "12123" to "13133" using the second kind of modification. In the process of modification, all digits should be in $\{1, 2, 3, 4, 5, 6\}$;

After a few modifications, he feels tired but pleased. He's got a list of digits which is very different from the original one. Thinking of the next thing to do, Lee becomes a little excited. He is going to figure out the least number of modifications to transform the final list back to the original one using the same rules.

Lee made it in a very short time. Can you do this like him?

Input

There are up to 100 test cases.

For each test case, there are two lines containing two lists of digits, representing the original list and the final list in order. The digits are all between 1 and 6. It is guaranteed that two lists are of same length. The length will not be greater than 110.

Output

For each test case, output one integer, the answer.

Sample Input

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22345611
12345611
2234562221
1234561221
2234562211
1234561111
22345622112
12345611111
654321654321654321654321
123456123456123456123456
```

Sample Output

1
2
3
3
11