

## Word Swap Problem

Agnes has heard that the carnival is going to have a new game next year. The carnival guy chooses a word and writes it down on a piece of paper, and only tells you the length of the word (lets call it Word 1). You have to guess a word of the same length (lets call it Word 2), and you earn or lose coins depending on how different are the two words (i.e., based on how much effort is required to swap the two words). Agnes, having just turned 6, has barely started reading and can't do math yet, so she wants your help to play this game.

The carnival provided the following rules for earning or paying coins.

Only letters a-z will be used in the game.

The difference between words is decided on a position-by-position basis.

For each position: (1) if the characters in that position in the two words are the same, no coins are paid or earned; (2) if the character in Word 1 at that position appears alphabetically before the character in Word 2, then you have to pay 1 coin for each character between the two characters (3) if the character in Word 1 at that position appears alphabetically after the character in Word 2, then you earn 1 coin for each character between the two characters.

For example: if the carnival guy wrote down agnes and you guessed heard, then the following table shows the calculation.

	Position 1	Position 2	Position 3	Position 4	Position 5	Total
Carnival Word	a	g	n	e	s	
Your Word	h	e	a	r	d	
Coins	paid 7	earned 2	earned 13	paid 13	earned 15	earned 10

You might think this is not particularly interesting game, since one can always guess words like aal, abut, etc. (depending on length), and easily earn coins. However, there is a twist: if it turns out you would earn too many coins, you don't earn anything (its a carnival game after all). We will ignore this twist for now but you might want to incorporate a rule to follow as an extension to your solution later.

You have to write a program that tells Agnes how many coins she will earn or have to pay for a pair of words. The program will read in a series of pairs of words and report the amount paid or earned.

### Input/Output Format:

#### Input: (words.txt)

The first line in the test data file contains the number of test cases. After that there will be sets of two lines that will contain the carnival word and the players guess word..

#### Output:

For each test case, the program will display the number of coins paid or earned.

### Examples:

#### **Input:**

4  
agnes  
heard  
unicorn  
minions  
victor  
vector  
sweat  
waste

#### **Output:**

Swapping letters to make agnes look like heard earned 10 coins.  
Swapping letters to make unicorn look like minions earned 1 coins.  
Swapping letters to make victor look like vector earned 4 coins.  
Swapping letters to make sweat look like waste was FREE.