

D Digital Friends

Problem

Two positive integers are called *friends* if they consist of the same decimal digits. So 123 and 32331313323213 are friends, but 123 and 22121221 are not.

Two positive integers (that are not friends) are called *almost friends* if a single neighbour exchange in one of them results in a pair of friends. A *neighbour exchange* changes two neighbouring digits a and b into $a - 1$ and $b + 1$, or into $a + 1$ and $b - 1$, provided that these new digits are still in the range $0 \dots 9$, and that no leading zero is generated. So 123 and 2223042 are almost friends (let $04 \rightarrow 13$), and 137 and 470 are neither friends nor almost friends (note that $13 \rightarrow 04$ is not allowed).

The problem is to determine if two given integers are friends or almost friends.

Input

The first line of the input contains a single number: the number of test cases to follow. Each test case has the following format:

- One line with two integers x and y , separated by a single space, with $0 < x, y < 10^{100}$. Both integers start with a non-zero digit.

Output

For every test case in the input, the output should contain a single line with the string "friends" or "almost friends" or "nothing", reflecting the property of the two given integers.

Example

The examples below correspond to the four examples mentioned in the text.

Input	Output
4	friends
123 32331313323213	almost friends
123 22121221	almost friends
123 2223042	nothing
137 470	

