Problem MIRROR: Mirrorbreaker

There is a terrorist running around who is destroying all mirrors he is able to destroy. The media is calling him *the Mirrorbreaker*. The ACME (American Company Mirroring Everything) as the leading mirror-manufacturer found a way to build mirrors that are not so easy to destroy. In order to destroy mirrors, Mirrorbreaker puts some special objects in front of the mirror that destroy the mirror, when they are reflected. ACME's new mirrors detect those special objects and don't reflect them perfectly to avoid getting destroyed. Marketing-specialists of ACME call this safe-mirroring. Your task is now to detect whether a mirror is a new one or an old one that is in danger of being destroyed by the terrorist.

Input

For the purpose of this task Mirrorbreaker's special objects are modelled by the lowercase characters a-z.

Input consists of several testcases. Each testcase is in a single line and consists of several special objects (characters a-z). A line contains of objects and their reflection. A line is considered as safe-mirrored if it is not perfectly mirrored. I.e. if you let n be the length of the line, the first n/2 characters aren't a reflecting of the last n/2 characters. Notice that every single object needs to have a correlating reflected object in order for the mirror to be a perfect (and thus unsafe) mirror.

The number of objects in a line is strictly less than 1024 and at least 1. Input is terminated by a line containing only the character #.

Output

For each testcase output safe if the mirror is a new safe one. Or output unsafe if it's old and can be easily destroyed by mirrorbreaker.

Sample Input 1	Sample Output 1
mirrorrorrim	unsafe
safeefes	safe
alsosafefasosla	safe
#	