Mirrored Pairs

The letters b and d are mirror images of each other, as are p and q. No other pairs of letters are mirrors, except for letters like H that are mirrors of themselves, and what's the interest in a pair that's just two of the same letter? We refuse to count self-mirrors as mirrored pairs.

Input

Input is a list of lines with two characters on each line. Your program should end immediately when it encounters a line with two spaces.

Output

The first line of output should contain only Ready. For each pair of characters (prior to a pair of spaces), print the line Mirrored pair if the characters are mirrors, otherwise print the line Ordinary pair.

Example

Input:
Fr
qp
HH
db

pq

Output:
Ready
Ordinary pair
Mirrored pair
Ordinary pair
Mirrored pair