CCC '19 S1 - Flipper

Time limit: 1.0s **Memory limit:** 1G

Canadian Computing Competition: 2019 Stage 1, Junior #4, Senior #1

You are trying to pass the time while at the optometrist. You notice there is a grid of four numbers:

1	2
3	4

You see lots of mirrors and lenses at the optometrist, and wonder how flipping the grid horizontally or vertically would change the grid.

Specifically, a "horizontal" flip (across the horizontal centre line) would take the original grid of four numbers and result in:

3	4
1	2

A "vertical" flip (across the vertical centre line) would take the original grid of four numbers and result in:

2	1
4	3

Your task is to determine the final orientation of the numbers in the grid after a sequence of horizontal and vertical flips.

Input Specification

The input consists of one line, composed of a sequence of at least one and at most $1\,000\,000$ characters. Each character is either `H`, representing a horizontal flip, or `V`, representing a vertical flip.

For 8 of the 15 available marks, there will be at most $1\,000$ characters in the input.

Output Specification

Output the final orientation of the four numbers. Specifically, each of the two lines of output will contain two integers, separated by one space.

Sample Input 1

```
HV
```

Sample Output 1

```
4 3
2 1
```

Sample Input 2

```
VVHH
```

Sample Output 2

```
1 2
3 4
```