# Preludes

Frederic Chopin was a Polish music composer who lived from 1810−1849. One of his most famous works was his set of preludes. These 24 pieces span the 24 musical keys (there are musically distinct 12 scale notes, and each may use major or minor tonality). The 12 distinct scale notes are:

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|----|----|----|
| $A$ | $A\sharp = B\flat$ | $B$ | $C$ | $C\sharp = D\flat$ | $D$ | $D\sharp = E\flat$ | $E$ | $F$ | $F\sharp = G\flat$ | $G$ | $G\sharp = A\flat$ |

Five of the notes have two alternate names, as is indicated above with the equals sign (e.g. $C\sharp = D\flat$ means that note has two names, $C\sharp$ and $D\flat$). Thus, there are 17 possible names for the scale notes, but only 12 musically distinct notes. When using one of these as the keynote for a musical key, we can further distinguish between the major and minor tonalities. This gives 34 possible keys, of which 24 are musically distinct.

In naming his preludes, Chopin used all the keys except for the following 10 (which were named instead by their alternate names):

$$A\flat \text{ minor} \quad A\sharp \text{ major} \quad A\sharp \text{ minor} \quad C\sharp \text{ major} \quad D\flat \text{ minor}$$
$$D\sharp \text{ major} \quad D\sharp \text{ minor} \quad G\flat \text{ major} \quad G\flat \text{ minor} \quad G\sharp \text{ major}$$

Write a program that, given the name of a key, will give an alternate name (if it has an alternate) or report that the key name is unique.

## Input

Each input line contains one test case. There are at least one and at most five cases, and the end of input is at the end of file. Each line has the format "note tonality", where note is one of the 17 names for the scale notes given above, and tonality is either major or minor. All note names will be upper-case, and the two accidentals ($\sharp$ and $\flat$) will be written as # and b, respectively.

## Output

For each case, output 'Case x:' (where x is the case number starting at 1), followed by a space. Then output the alternate key name, if it exists, or print UNIQUE if the key name is unique.

## Sample Input 1

```
Ab minor
D# major
G minor
```

## Sample Output 1

```
Case 1: G# minor
Case 2: Eb major
Case 3: UNIQUE
```