DMOPC '14 Contest 3 P2 - Not Enough Rejudging!

Amagi Brilliant Contests runs a business making and hosting contests on its online platform to competitive programmers who want to run their own contests.

From their last contest, ABC has some submissions they need to rejudge to ensure an accurate score. The N submissions each have their own status code. The four types of status codes that occurred during the contest were `AC`, `WA`, `TLE`, and `IR`.

When the submissions are rejudged, all of the existing `AC` will stay `AC`; the first 30% (rounded **down**) `WA` will turn to `AC` and the rest will stay `WA`; all existing `TLE` will turn to `WA`; and up to the first 10 `IR` will turn to `AC`, up to the next 10 will turn to `WA`, and the rest will stay `IR`.

You are the head of the technical troubleshooting department at Amagi Brilliant Contests, and so you have been tasked with determining the final list of status codes after rejudging (the initial list is given in order of rejudging).

Constraints

$1 \leq N \leq 1\,000$

Input Specification

The first line of input will have N, the number of status codes.

The next N lines of input will each contain a status code in the order that they are rejudged. A status code is guaranteed to be one of `AC`, `WA`, `TLE`, or `IR`.

Output Specification

There should be N lines of output, each containing the new status code of the corresponding submission after rejudging, in the order they are rejudged.

Sample Input 1

```
4
AC
AC
TLE
IR
```

Sample Output 1

```
AC
AC
WA
AC
```

Explanation for Sample Input 1

The first two `AC`s stayed the same, the `TLE` turned to `WA`, and the `IR` turned to `AC`.

Sample Input 2

```
21
IR
IR
IR
WA
IR
WA
IR
IR
IR
IR
WA
IR
IR
WA
IR
WA
IR
IR
IR
WA
IR
```

Sample Output 2

```
AC
AC
AC
AC
AC
WA
AC
AC
AC
AC
WA
AC
AC
WA
WA
WA
WA
WA
WA
WA
WA
```