Super Over

An IPL match is going on between two teams and its a tie !!! So they decided to have a Super Over.

Rules of Super Over are as follows:

1) There has to be 6 valid balls.

2) If two wickets fall before 6 valid balls then team is considered all-out.

3) Wide and No-ball are not valid balls.

So, there are three batsmen b1, b2, b3. Initially b1 is playing (on strike) and b2 is at the other end (non-strike). If any one of them gets out, b3 replaces that batsmen.

At the end of the over, determine the number of runs scored by b1, b2 and b3 respectively.

Input

Input contains 1 line. Runs scored in every ball.

W stands for wide, N stands for No-ball and O stands for out.

Output

Output contains three lines. Each line contains runs scored by b1, b2 and b3 repectively.

Example

Input 1:
1 1 1 1 1 1

Output 1:
3
3
0

Input 2:
3 0 O O

Output 2:
3
0
0