The Problem

America’s National past time is Major League Baseball. The scoring for baseball is made up of a diamond shaped infield with 3 bases and home plate. Players come up to bat and try to get hits, so they can get on base and hopefully score runs. There are four different kind of hits a player can get; a single (making it to first base), a double (getting to second base), a triple (getting to third base) or a homerun (running around all four bases and scoring, most of the time the ball is over the fence). Runners advance on hits if they are already on base.

For example, if there is a runner on first and the next player hits a double, the player from first advances to third and the player who hit the ball goes to on second base. It is safe to assume that players can’t advance more bases than that of the hit. A homerun brings all runners on base home. When a runner touches home plate that counts as a run. A typical baseball game is made up of 9 innings where each team gets half an inning at bat and half an inning in the field, but extra innings are possible if both teams are tied after 9 innings of play. Getting 3 outs signifies the length of an inning. A game can’t end in a tie, and all tied games going into extra innings allow the home team (last to bat) a chance to tie or win the game.

Write a program that will read in a baseball game and determine the winner.

Input

The input will consist of an inning number with hits (S, D, T, and HR) separated by a single blank. A ‘#’ will indicate the end of the visiting team’s inning and the ‘%’ will indicate the end of the home team’s inning. A ‘0’ will indicate the end of the game.

Output

The output will consist of the game # on one line and the scoring per inning with inning numbers across the top and an ‘R’ for the Run totals. The next line will list “Vistior” and the inning scores with a total in the R place. The last line will list “Home”, inning scores and the totals in the R place.
Sample Input

S D HR # T %
S T # D %
S D # HR %
S HR # S T HR %
D D HR # T D %
T D HR # T S %
S D # D S S %
D D # S S S S %
S S S T # S S %
0

Corresponding Output

Team  1  2  3  4  5  6  7  8  9  R
Visitor 3  1  0  2  3  3  0  1  3  16
Home  0  0  1  3  1  1  1  1  0  8