

Problem B

Fifteenlove

Source file: fifteenlove.{ c | cpp | java | py }

Author: Prof. Dr. Leandro Luque (Fatec Mogi das Cruzes)

A very popular sport worldwide is tennis, known for its peculiar scoring system. To beginners, this scoring might seem strange, but as you get used to the game, you start understanding the logic behind it.

A tennis match consists of sets. For instance, matches at Roland Garros, the most charming tennis tournament, may consist of up to 5 sets. The player who wins three sets first is declared the match winner.

Each set consists of multiple games. During each game, one of the players serves. The scoring for a game follows this sequence: 0 (love), 15, 30, 40, and GAME. If the game is tied at 40 (also known as "deuce"), the next player to win a point gains the advantage. If that player wins the subsequent point, they win the game. If not, the score reverts to deuce.

A set is won by the first player to reach 6 games, but they must win by a margin of 2 games. Therefore, if the score reaches 6-6, a "tie-break" is played. In the tie-break, the first player to score 7 points wins, provided they have a 2-point lead. If not, the tie-break continues until a player has a 2-point lead. Unlike points in games, points in a tie-break follow the simple numerical order of 1, 2, 3, 4, and so on. The player who served first in the tiebreak should be the one who received the serve in the previous game. Thereafter, the serve switches to the opponent and alternates every two points. For instance, let's suppose that Munarinho was serving at 6-6 and the game went into a tie-break. The tie-break will start with Munarinho's opponent serving. Then, there will be two serves by Munarinho, followed by two serves from his opponent, and so on. Additionally, the player who receives the first serve in a tie-break is the one who will serve the game after it.

That said, here's your challenge: given a record of each point in a tennis match, you should determine the current score of the game. You should consider that player 1 always starts serving and that the match follows the rules of Roland Garros.

Input

The input consists of a single test case. The first line contains the number of points N ($1 \leq N \leq 300$). The next line contains N characters B ($B \in \{W, L\}$), in uppercase, indicating whether the player serving Won or Lost the point.

Output

The output should reflect the game score after the points specified in the input have been played. The output format is " $W(X)[U] - Y(Z)[V]$ ", without quotes. Here, W and Y represent the number of sets won by player 1 and 2, respectively ($0 \leq W, Y \leq 3$). X and Z denote the number of games won by player 1 and 2 in the current set, respectively ($0 \leq X, Z \leq 7$). The values of U and V depend on whether the game is in a tie-break. If so, the values are integers starting at 0 ($U, V \geq 0$). If not, the possible values are ($U, V \in \{0, 15, 30, 40, ADV, GAME\}$). $GAME$ should be used only for the last game in the match. For others, after finishing, the score will be restarted to 0, 0.

If the input match concludes, your output should display the number of games in the final set and the number of points in the final game. For example, if the score is $1(2)[15] - 2(5)[40]$ and player 2 scores, the result

should be $1(2)[15] - 3(6)[GAME]$.

Example of Input 1

4 WWLL	0 (0) [30] - 0 (0) [30]
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Example of Output 1

Example of Input 2

21 WWWLLLLWWWLLLLWWWWW	0 (5) [0] - 0 (0) [15]
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Example of Output 2

Example of Input 3

11 WWWLLLWLLWW	0 (0) [ADV] - 0 (0) [40]
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Example of Output 3