

Problem Statement

Your coworkers are playing a custom game of Blackjack. You are asked to deal the cards and the managers bet with you on some of the players.

Input Format

The first line contains an integer, N , representing the number of players, where $1 < N \leq 4$. Each player has someone betting on them: you or a manager. The second line contains an integer, M , representing the amount of money each better (including yourself) places on the table, where $0 < M \leq 1000$.

On the next N lines to follow, you are provided the name of your coworker and the first card they have been dealt. If one player has an ace as their first card, they automatically win and the game ends. If more than one player has an ace, then the players with the aces tie and the game ends.

The player you bet on is represented by an asterisk before the player's name. If that player wins, you will receive the entire pool of money. Note that if the player you bet on ties with others, you split the profit with the other betters. Following the $M + 2$ lines is a string of the cards in the deck. There are 52 cards, and M cards have been dealt out (1 per player). The string will always be of length $52 - M$ in the beginning. The X in the string represents a 10 and the cards are dealt following the string from left to right from the top player to the bottom player. Your coworkers will always draw a card. If a player exceeds 21, then they are eliminated. Skip the player when this happens and keep dealing until one player remains or someone reaches 21.

- Numbered cards are worth their number - e.g. a 9 of Spades is worth 9.
- Face cards (J, Q, and K) are worth 10.
- Aces can be worth 1 or 11.

Output Format

With this information, determine the winner and your net income from the overall game. The winning players should be in order from top to bottom of the given list of players. Separate winning players with a space. The net income should be rounded to 2 decimals. Indicate positive or negative net income with "+" or "-" without the quotation marks. If there is no change (net income = 0), print the winners separated by spaces and indicate "NO CHANGE" instead of "\$0.00"

Sample Input

```
4
20
*Jack: K
Alice: Q
Lily: 4
Bob: 9
3Q67JK2Q625458429XK47AXQ8J93JXJAA67A26875X38K935
```

Sample Output

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Lily -$20.00
```