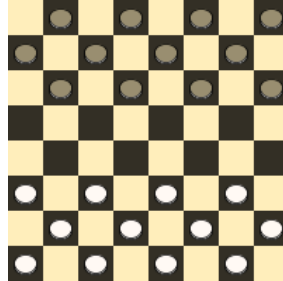


Checkers

Checkers or Draughts is a popular 2 player board game where the opponent discs are captured by jumping over them. The objective of the game is to capture as many discs of the opponent as possible or if the opponent has no valid moves left to make.

The game takes place on an 8 * 8 chess board as shown below.



Each player occupies one of the 2 sides of the chess board where the pawns are placed. Black goes first.

Rules

- Each player begins with 12 colored discs.
- The discs are positioned such that each player has a light square on the right side corner closest to him or her.
- Each player places his or her discs on the 12 dark squares closest to him or her.
- Black moves first and players alternate henceforth.
- Moves are allowed only on the dark squares, so the discs always move diagonally. discs are always limited to forward moves (toward the opponent).
- There are 2 kinds of moves - Capturing and Non-Capturing moves. In both types of moves, player can only move/jump to a vacant position.
- Non-Capturing moves may move only one square.
- If more than 1 Non-Capturing moves exist, any of the moves can be played.
- A disc making a Capturing move leaps over one of the opponent's discs that is 1 square away from itself and lands in a straight diagonal line, which is 2 squares away from itself. A jump can make only 1 capture, but the same disc can capture multiple opponent discs by doing multiple jumps in a single move.
- A captured disc is removed from the board.
- If a Capturing move exists, the jump has to be made. If more than one capture exists, a choice can be made.
- A player reaching the opponent's side of the board is crowned as a King. King's move is similar to that of a regular disc's move but restriction of forward only moves are lifted for the King's move. Multiple King's may exist.
- White discs are present at the bottom of the board and the black discs are present at the top of the board.

Black discs are represented by character 'b' (ascii value 98) and white discs are represented by character 'w' (ascii value 119). King's of respective discs are represented by 'B' (ascii value 66) and 'W' (ascii value 87). Empty squares are represented by character '_' (ascii value 95)

Input Format

The first line of the input contains the player's character 'b' or 'w' indicating the player's turn.
The second line contains the size of the board (L).

L lines follow each containing L characters as mentioned above.

Output Format

For a Non-Capturing move, print 3 lines.

The first line containing the number 1 indicating 1 hop has been made.

The second line contains 2 space separated integers indicating the position of the disc to be moved.

The third line contains 2 space separated integers indicating the new position of the disc.

For a Capturing move,

the first line contains an integer indicating the number of hops (H) made while capturing. H+1 lines follow.

The first line contains 2 space separated integers indicating the disc that is making the capture.

H lines follow each line indicating the new position to which the disc has hopped to.

Sample Input: Non-Capturing

```
b
8
   W
b
  b
  _
  w
w  w
  b
w  w
```

Sample Output: Non-Capturing

```
1
1 0
2 1
```

Explanation: Non-Capturing

It is black's turn. A black disc is moved from 1 0 to 2 1.

Sample Input: Capturing

```
w
8
b_b_b_b
  b
  b
  w
w_b_w
  w_b
w  w
```

Sample Output: Capturing

```
5
6 1
4 3
2 1
0 3
2 5
0 7
```

Explanation: Capturing

It is white's turn. A single disc placed at 6 1 hops to 4 3 capturing black disc along 5 2, captures another black disc at 3 2 and hops to 2 1, captures yet another disc at 1 2 and hops to 0 3. At 0 3, it turns into a King disc. Now it is allowed to move backwards as well. It captures another black disc at 1 4 and moves to

2 5 and captures its final black disc at 1 6 and moves to 0 7.