K. Turn Over Worker

Time Limited : 3 seconds

Problem description

Reversi is a strategy board game for two players, played on an 8x8 uncheckered board. There is 64 identical game pieces called disks, which are light on one side and dark on the other. Players take turns placing disks on the board with their assigned color facing up. During a play, any disks of the opponent's color that are in a straight line and bounded by the disk just placed and another disk of the current player's color are turned over to the current player's color.

You are requested to program a function in a Reversi game application, which is used to compute which disks should be turned over in the board after a move of a player.

The chess board is represented in 8x8 matrix as follow

0	1	2	3	4	5	6	7	8
1	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	-	-	-	W	B	-	-	-
5	-	-	-	B	W	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-

Input:

First line:

A character: ‘W’ or ‘B’ to specify who played the move.

Row and Column position of the new placed disk. (start from 1) (assume that the position isn’t occupied by any player.

Next 8 lines with 8 column is the current chess board, where ‘B’ or ‘W’ characters is used to indicate the place occupied by Black or White player. And ‘-‘ is used to show that the place is available.

Output:

First line: n - the number of disks should be turned over. If there is no disk to be turn, 0 is output.

Following n lines are the row and column position of the pieces should be turned over. The result will be ordered in ascending of Row, then Colum.

Example 1:

Input	Output
W 3 7 - - - - - - - - - - - - - - - - - - W B B B - - - - B B W W B - - - B B W W W - - - - W -	4 3 4 3 5 3 6 4 7

Example 2:

Input	Output
B 3 5 - W B - - - - - - B W -	0

Example 3:

Input	Output
B 7 5 - W W B - - - - - B B W - - - - - B B W W - - - - - - - - - - - - - - - - - -	2 5 5 6 5