The travelling tortoise P22295_en

Find all the paths that a tortoise can travel from an initial position to a final position. The ground has $n \times m$ paving stones, each one with a letter painted on it. The tortoise can only make horizontal and vertical movements, and it cannot pass by the same position twice.

Input

Input begins with n and m, followed by n lines with m letters each. Follow a pair of natural numbers indicating the initial row and column, and a pair of naturals numbers indicating the final row and column. The upper-left corner corresponds to the position $(0, 0)$.

Output

Print all the paths from the initial position to the final position.

Information about the checker

You can print the solutions to this exercise in any order.

Sample input 1

```
2 2
IG
BA
1 0  0 1
```

Sample output 1

```
BIG
BAG
```

Sample input 2

```
3 2
ab
de
ab
0 0  2 1
```

Sample output 2

```
adab
adeb
abeb
abedab
```

Sample input 3

```
1 1
A
0 0  0 0
```

Sample output 3

```
A
```

Problem information

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