DWITE '10 R1 #5 - Ricochet Robot

Time limit: 1.0s   **Memory limit:** 64M

DWITE Online Computer Programming Contest, October 2010, Problem 5

That vacuum robot from Problem 2 did not work out that well – its breaks don't work. Luckily it safely stops whenever it hits a wall, so maybe it's not all that bad? We can use software to plan out shortest routes to bounce around from one spot to another, in a 10 by 10 room.

- `#` – walls
- `.` – empty space
- `A` – start position
- `B` – end position

The input will contain 5 sets of inputs, each a 10 by 10 room as described above. For a visual break in test cases, there will be an additional line of 10 dashes after every input set.

The output will contain 5 lines, each an integer of the minimum number of moves necessary to get from point A to point B.

Notes: test cases will be such that it's always possible to come to a stop at point B. The solution requires a stop, not simply a pass over the point. A robot can move in any of the 4 directions, and will continue moving until hitting a wall or an edge of the room.

Sample Input

```
....#.....
..A.......
....B#....
...#......
..........
..........
..........
..........
..........
..........
----------
....#.....
..A.......
....B#....
#..#......
..........
..........
..........
..........
..........
..........
----------
```

Sample Output

```
4
3
```