```python
Edge = tuple

def edge(A, B):
    return Edge(sorted([A, B]))

def confini(square):
    """The 4 neighbors of an (x, y) square."""
    (x, y) = square
    return {(x + 1, y), (x - 1, y),
            (x, y + 1), (x, y - 1)}

def cerca(maze, frontier):
    start = (0, 0)
    uscite = {
        (maze.width - 1, maze.height - 1),
        (maze.width - 1, 0),
        (0, maze.height - 1)
    }
    frontier.put(start)
    paths = {start: [start]}
    while frontier:
        s = frontier.pop()
        if s in uscite:
            return paths[s]
        for snew in confini(s):
            if snew not in paths \
               and edge(s, snew) in maze.edges:
                frontier.put(snew)
                paths[snew] = paths[s] + [snew]

soluzione = cerca(maze, Stack())
```

maze · dfs grid 34x34 path 304 steps explored 503 cells

size speed new maze solve step