아이템 줍기

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References

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https://school.programmers.co.kr/learn/courses/30/lessons/87694
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References

1. BFS

1. BFS

```
import collections
def solution(rectangle, characterX, characterY, itemX, itemY):
    for r in rectangle:
        n = max(n, max(r))
    grid = [[-1 for _ in range(2 * n + 1)] for _ in range(2 * n + 1)]
    for l_x, b_y, r_x, u_y in rectangle:
        for x in range(2 * l_x, 2 * r_x + 1):
            for y in range(2 * b_y, 2 * u_y + 1):
                if 2 * l_x < x < 2 * r_x and 2 * b_y < y < 2 * u_y:
                    grid[x][y] = 0
                    continue
                if grid[x][y] != 0:
                    grid[x][y] = 1
    queue = collections.deque([(2 * characterX, 2 * characterY)])
    visited = {(2 * characterX, 2 * characterY): True}
    grid[2 * characterX][2 * characterY] = 0
   while queue:
```

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```
x, y = queue.popleft()

for dx, dy in [(-1, 0), (1, 0), (0, -1), (0, 1)]:
    if x + dx < 0 or x + dx > 2 * n or y + dy < 0 or y + dy > 2 * n:
        continue
    if grid[x + dx][y + dy] < 1:
        continue
    if x + dx == 2 * itemX and y + dy == 2 * itemY:
        grid[x + dx][y + dy] += grid[x][y]
        return grid[x + dx][y + dy] // 2

    if not visited.get((x + dx, y + dy), False):
        visited[(x + dx, y + dy)] = True
        queue.append((x + dx, y + dy))
        grid[x + dx][y + dy] += grid[x][y]</pre>
```

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