

# Recorrido: BFS

```
from collections import deque, defaultdict
```

```
def bfs(task, graph):
```

```
    visited = set()
```

```
    queue = deque([task])
```

```
    count = 0
```

```
    while queue:
```

```
        current = queue.popleft()
```

```
        for neighbor in graph[current]:
```

```
            if neighbor not in visited:
```

```
                visited.add(neighbor)
```

```
                queue.append(neighbor)
```

```
                count += 1
```

```
    return count
```

```
def find_task_with_most_dependencies(scenario):
```

```
    n = scenario[0]
```

```
    graph = defaultdict(list)
```

```
    for i in range(n):
```

```
        task_info = scenario[i + 1]
```

```
        dependencies = task_info[1:]
```

```
        task_id = i + 1
```

```
        for dep in dependencies:
```

```
            graph[task_id].append(dep)
```

```
    max_dependencies = -1
```

```
    best_task = -1
```

```
    for task in range(1, n + 1):
```

```
        dependencies_count = bfs(task, graph)
```

```
        if dependencies_count > max_dependencies or (dependencies_count ==  
max_dependencies and task < best_task):
```

```
            max_dependencies = dependencies_count
```

```
            best_task = task
```

```
    return best_task
```

```
results = []
```

```
while True:
```

```
n = int(input().strip())
if n == 0:
    break
scenario = [n]
for _ in range(n):
    line = list(map(int, input().strip().split()))
    scenario.append(line)
results.append(find_task_with_most_dependencies(scenario))

for result in results:
    print(result)
```

## My Submissions

#	Problem	Verdict	Language	Run Time	Submission Date
29929961	10926 How Many Dependencies?	Accepted	PYTH3	0.230	2024-11-01 16:04:07