

Homework #1 Breadth-First Search (BFS)

Be able to work through BFS using the following pseudocode:

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Pseudo-code for breadth-first search:
bfs(v1, v2):
    List := {v1}.
    mark v1 as visited.

    while List not empty:
        v := List.removeFirst().
        if v is v2:
            path is found.

        for each unvisited neighbor  $v_i$  of v
            where there is an edge from v to  $v_i$ :
                mark  $v_i$  as visited.
                List.addLast( $v_i$ ).

    path is not found.
```

Video 1: <https://www.youtube.com/watch?v=oDqjPvD54Ss>

Focus on BFS (don't worry about reconstructing path).

Video 2: <https://www.youtube.com/watch?v=0u78hx-66Xk>