

## Breadth-first traversal logic

bft – called to visit the entire graph in breadth-first sequence, starting with the first.

```
void bft (graph)
    set all vertices as unvisited
    push first vertex onto queue
    mark first vertex as visited
    position at second vertex          (there might not be one)
    while (move vertices in graph)
        if (vertex not visited)
            push vertex onto queue
            mark vertex as visited
            while (queue not empty)
                pop queue
                visit popped vertex
                position at popped vertex's first neighbor    (might not be one)
                while (more neighbors for the popped vertex)
                    if (neighbor not visited)
                        push neighbor onto queue
                        mark neighbor as visited
                    endif
                position at next neighbor
            end while
        end while
    endif
    position at next vertex
end while
```