

```
BFS(graph, start_vertex):  
    let queue be a queue  
    queue.enqueue(start_vertex)  
    visited[start_vertex] = true  
    while queue is not empty:  
        vertex = queue.dequeue()  
        for each neighbor in graph[vertex]:  
            if not visited[neighbor]:  
                queue.enqueue(neighbor)  
                visited[neighbor] = true
```

```
DFS(graph, start_vertex):  
    let stack be a stack  
    stack.push(start_vertex)  
    while stack is not empty:  
        vertex = stack.pop()  
        if vertex is not visited:  
            visited[vertex] = true  
            for each neighbor in graph[vertex]:  
                if not visited[neighbor]:  
                    stack.push(neighbor)
```

Dijkstra algorithm:

```
for each vertex v:
    dist[v] =  $\infty$ 
    prev[v] = none
dist[source] = 0
set all vertices to unexplored
while destination not explored:
    v = least-valued unexplored vertex
    set v to explored
    for each edge (v,w)
        if dist[v] + len(v,w) < dist[w]:
            dist[w] = dist[v] + len(v,w)
            prev[w] = v
```

Bell-Ford Algorithm:

```
For each vertex v
    dist[v] =  $\infty$ 
    dist[source] = 0
for i = 1 to |V|-1
    for each edge (u,v)
        if d[v] > d[u] + w(u,v)
            then d[v] = d[u] + w(u,v)
For each edge (u,v)
    if d[v] > d[u] + w(u,v)
        then a negative-weight cycle exists
```