

```

BFS (start V) {
  start V. distance = 0
  queue.enqueue (start V)
  discovered Set.add (start V)
  while (queue not empty) {
    cur V = queue.dequeue ()
    cur V. visited = true
    for (adj V in adjacent vertices to cur V) {
      if (adj V is not in discovered Set) {
        queue.enqueue (adj V)
        discovered Set.add (adj V)
        adj V. distance = cur V. distance + 1
      }
    }
  }
}

```

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DFS (start V) {
  stack.push(start V)
  while (stack is not empty) {
    curV = stack.pop()
    if (curV is not in Visited Set) {
      curV.visited = true
      visited Set.add(curV)
      for (adjV in adjacent vertices to curV) {
        stack.push(adjV)
      }
    }
  }
}

```

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Dijkstra Shortest Path (start V) {
  for (all v in all vertices) {
    curV.distance = ∞
    curV.pred = 0
    unvisited Q.enqueue(curV)
  }
  startV.distance = 0
  while (unvisited Q not empty) {
    curV = unvisited Q.dequeue(min V from startV)
    for (adjV in adjacent to curV) {
      edgeW = weight of edge from curV to adjV
      altDist = curV.distance + edgeW
      if (altDist < adjV.distance) {
        adjV.distance = altDist
        adjV.pred = curV
      }
    }
  }
}

```