| Algorithim | Time<br>Complexity | Space<br>Complexity | Complete | Optimal                                      |
|------------|--------------------|---------------------|----------|----------------------------------------------|
| BFS        | O(V + E)           | O(V)                | Yes      | Yes only if all of<br>the costs are<br>equal |
| UCS        | O(b^d)             | O(b^d)              | Yes      | Yes as long as costs are non negative        |
| DFS        | O(V + E)           | O(V)                | No       | No                                           |
| DLS        | O(b^l)             | O(bl)               | No       | No                                           |
| IDS        | O(b^d)             | O(bd)               | Yes      | Yes, only if costs are equal                 |
| A*         | O(b^d)             | O(b^d)              | Yes      | Yes                                          |