Artificial Intelligence Homework 1

Due date: 2/8 by 11:59pm

Fill in the following table with the total number of nodes expanded and the number of moves in the returned solution. The first puzzle has been filled in for you.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Puzzle Name** | **BFS** | **DFS** | **A\* - Number of misplaced tiles** | **A\* - Manhattan distance** |
| puzzle1.puzz | 175,313 nodes | 99, 523 nodes | 52, 193 nodes | 1, 619 nodes |
| 27 moves | 93,079 moves | 27 moves | 27 moves |
| puzzle2.puzz |  |  |  |  |
|  |  |  |  |
| puzzle3.puzz |  |  |  |  |
|  |  |  |  |
| puzzle4.puzz |  |  |  |  |
|  |  |  |  |
| puzzle5.puzz |  |  |  |  |
|  |  |  |  |

Given the information in the above table, what can you conclude about the performance of the different search algorithms?