

1.

Maze	Depth-First Search			Breadth-First Search		
	#nodes explored	Solution length	Is it optimal?	#nodes explored	Solution length	Is it optimal?
tiny	14	10	No	15	8	Yes
medium	144	130	No	266	68	Yes
big	390	210	Yes	617	210	Yes

Maze	Best-First Search			A* Search		
	#nodes explored	Solution length	Is it optimal?	#nodes explored	Solution length	Is it optimal?
tiny	15	8	Yes	15	8	Yes
medium	269	68	Yes	269	68	Yes
big	620	210	Yes	620	210	Yes

2. Short Discussion

- Optimality:
 - + BFS and A* always found the shortest path.
 - + Greedy Best-First is not always correct, but it worked well here because the heuristic guided it.
 - + DFS sometimes found the shortest path, but it depends on the maze and the order neighbors are checked.
- Nodes explored / efficiency:
 - + BFS looked at the most nodes because it searches evenly in all directions.
 - + A* looked at fewer nodes because the heuristic helped focus the search.
 - + Greedy Best-First looked at the fewest nodes here, but it can do badly if the heuristic is wrong.
 - + DFS looked at fewer nodes than BFS in these cases, but it can explore a lot more or miss the shortest path in other mazes.
- Trade-offs:
 - + BFS -> always correct, but slower and uses more memory.
 - + A* -> correct and faster if the heuristic is good.
 - + Greedy Best-First -> fast, but not always correct.
 - + DFS -> uses little memory and is simple, but not reliable for shortest paths.

