# COMP304 Project 1

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# **Heuristic Evaluation Program**

The state space consists of people as well as well the distance from the bridge as well as the torch.

The heuristic function that was selected is, the distance from the start-side to the end-end side for the person crossing the bridge.

This does not overestimate the problem as it is dumbing down the solution as it is showing the user that the main problem of cost is when the person or people are crossing the bridge.

# **Comparison of performance:**

For n=3 and times = 5,6,7 for all examples:

BFS Final Time: 5ms

DFS Final Time: 3ms

A\* Final Time: 60ms

By the results, the method used to solve the issue which is the best is the DFS search method.

For n=4 and times= 1,2,3,4 for all examples:

BFS Final Time: 8ms

DFS Final Time: 9ms

A\* Final Time: 10ms

By the results, the method used to solve the issue which is the best is the BFS search method.

For n=5 and times= 1,2,3,4,5 for all examples:

BFS Final Time: 22ms

DFS Final Time: 10ms

A\* Final Time: 19ms

By the results, the method used to solve the issue which is the best is the DFS search method.