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# Breadth First Search

Choose difficulty:

☒ Beginner☒ Intermediate**1. Which of the following are applications of BFS?**

- ☐ a: To find the Minimum Spanning Tree (MST) [Explanation](#)
- ☐ b: To find the shortest distance to a node from the root [Explanation](#)
- ☐ c: Cycle detection in undirected graphs [Explanation](#)
- ☒ d: All of the above [Explanation](#)

**2. Imagine a 4X4 grid (assume 1 indexing) where the hero stands in the cell (2,3) and the villain is in the cell (3,1). Assuming the hero can only move up, down, left and/or right to the immediately adjacent cells and cannot move out of the grid, how many steps will it take for the hero to reach the villain (given that the villain is stationary)?**

- ☐ a: 1 [Explanation](#)
- ☐ b: 2 [Explanation](#)
- ☒ c: 3 [Explanation](#)
- ☐ d: 4 [Explanation](#)

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2 out of 2

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