## **Experiment No: 1**

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Title: Tic Tac Toe game implementation using

a) Brute Force Method

## b) Heuristic Approach

## Postlab:

**1.** What is the easiest trick to win tic tac toe?

**Ans:** The easiest trick to win Tic Tac Toe is to take the center square if it's available. If not, take a corner. This strategy gives you the best chance of creating a winning line while also blocking your opponent from doing the same.

2. What is the algorithm to follow to win a 5\*5 Tic Tac Toe?

**Ans:** To win a 5x5 Tic Tac Toe game, you'll want to follow these strategies:

- a) Control the center: As with the standard 3x3 Tic Tac Toe, controlling the center square gives you more opportunities to create winning combinations.
- b) Create forks: Look for opportunities to create multiple winning possibilities with a single move. This forces your opponent to defend in multiple places at once.
- c) Block your opponent's forks: Similarly, be vigilant in blocking your opponent from creating forks.
- d) Control the corners and edges: As the game progresses, try to control the corners and edges to limit your opponent's options and increase your own.
- e) Stay flexible: Be prepared to adapt your strategy based on your opponent's moves and the evolving board position.
- **3.** Is there a way to never lose at tic tac toe?

**Ans:** In the game of Tic-Tac-Toe, it is possible to play in such a way that you never lose, as long as you make optimal moves. This means that if you start the game and play perfectly, you can force a draw, and if your opponent makes a mistake, you can win. This is because Tic-Tac- Toe is a solved game, meaning that with perfect play from both sides, the game will always end in a draw.

**4.** What can tic-tac-toe help you with?

**Ans:** Tic Tac Toe is well known game that is simple to grasp, easy to adapt and excellent for building beginner planning, problem solving and perspective taking skills. This post is going to focus on how you can use Tic Tac Toe to help develop your child's gross motor, fine motor, social, emotional and cognitive skills.