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* Experiment-2 (Partial)

Q.1) What is the relationship between tic-tac-toe and magic Square?

Ans:- There is a relationship between Tic Tac Toe and magic squares, particularly in the context of a 3x3 magic square. In Tic Tac Toe, players aim to create a line of three of their symbols (X or O) in a row, column, or diagonal. A 3x3 magic square is a mathematical construct where the sum of the numbers in each row, column, and both main diagonals is the same. In a 3x3 magic square, the numbers are usually distinct integers arranged in a grid. Both Tic Tac Toe and a 3x3 magic square involve arranging symbols or numbers in a way that satisfies specific criteria for winning or being considered "magic".

Q.2) What is a magic square of order n?

Ans:- A magic square of order n is an arrangement of the numbers from 1 to n^2 in a square grid of size nxn, such that the sum of the numbers in each row, each column, and both main diagonals is the same. This constant sum is known as the "magic constant" or "magic sum". The most well-known and studied magic square is of order 3 (3x3), where the sum of each row, column, and diagonal is 15. Magic squares exist for various orders, but constructing them becomes increasingly challenging as the order increases.