



# Game of Sprouts

## Game Overview

### Game of Sprouts 2024

#### About Sprouts:

Sprouts is an impartial combinatorial game, which was invented by mathematicians John Horton Conway and Michael S. Paterson at Cambridge University in the early 1960s. The setup is even simpler than the popular Dots and Boxes game, but gameplay develops much more artistically and organically. The game of Sprouts can be analyzed for its mathematical properties and is useful in applications of graph theory.

#### Rules:

The game of Sprouts is played by two players, starting with a few spots drawn on a plane. Players take turns, where each turn consists of drawing a line between two spots (or from a spot to itself) and adding a new spot somewhere along the line. The players are constrained by the following rules:

- The line may be straight or curved, but must not touch or cross itself or any other line.
- The new spot cannot be placed on top of one of the endpoints of the new line. Thus the new spot splits the line into two shorter lines.
- No spot may have more than three lines attached to it. For the purposes of this rule, a line from the spot to itself counts as two attached lines and new spots are counted as having two lines already attached to them.
- You cannot touch a dot twice with one line then connect it to another.

In so-called *normal play*, the player who makes the last move wins

