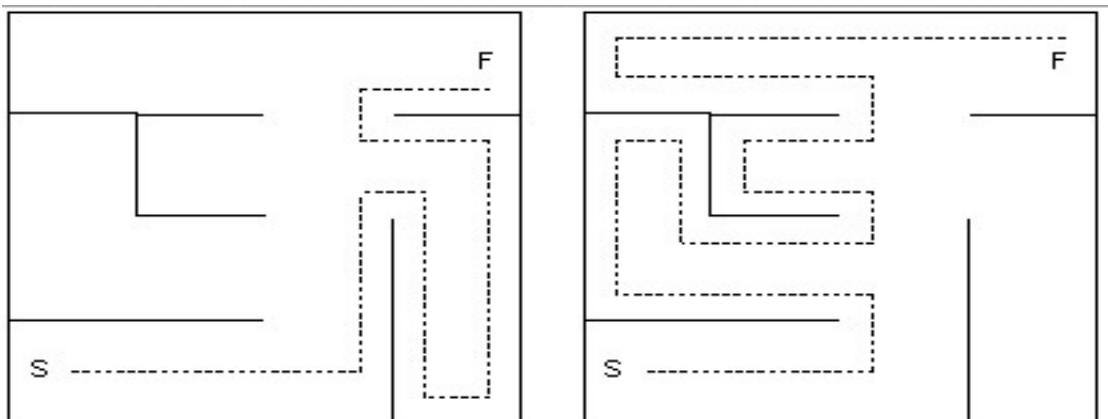


## Maze Activity Using Maze Solving Algorithms

**Objective:** Apply algorithms to solving mazes

**Activity Description:** Use the Wall Following algorithm or Dead-End Filling algorithm to solve the following mazes:

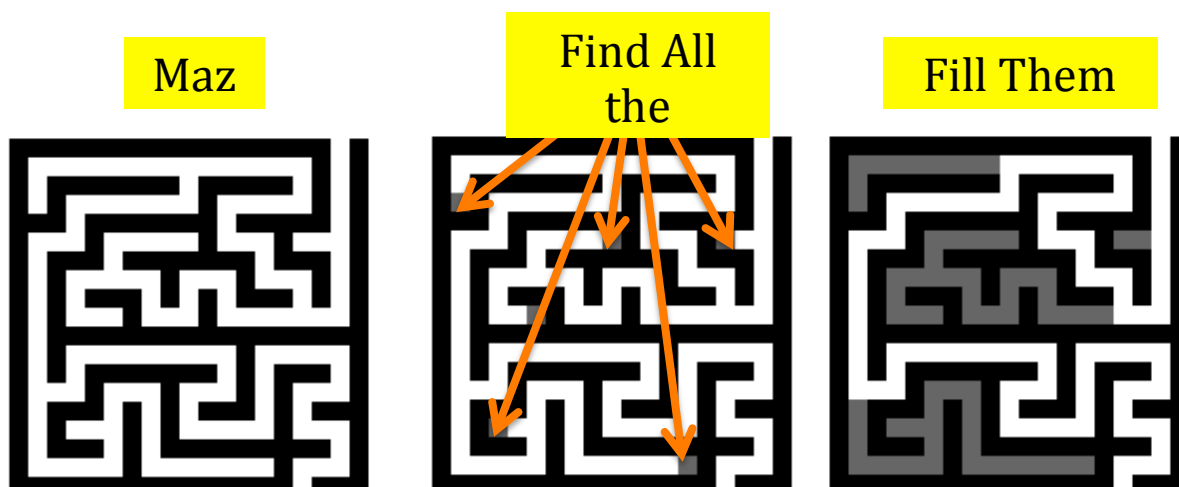
**Wall Following Algorithm:** The wall following rule, also known as either the *left-hand rule* or the *right-hand rule*, states that if you keep one hand in contact with one wall of the maze the player is guaranteed not to get lost and will reach a different exit if there is one; otherwise, he or she will return to the entrance having traversed every corridor in the maze at least once. This rule works only for simply connected mazes. An example is shown below:



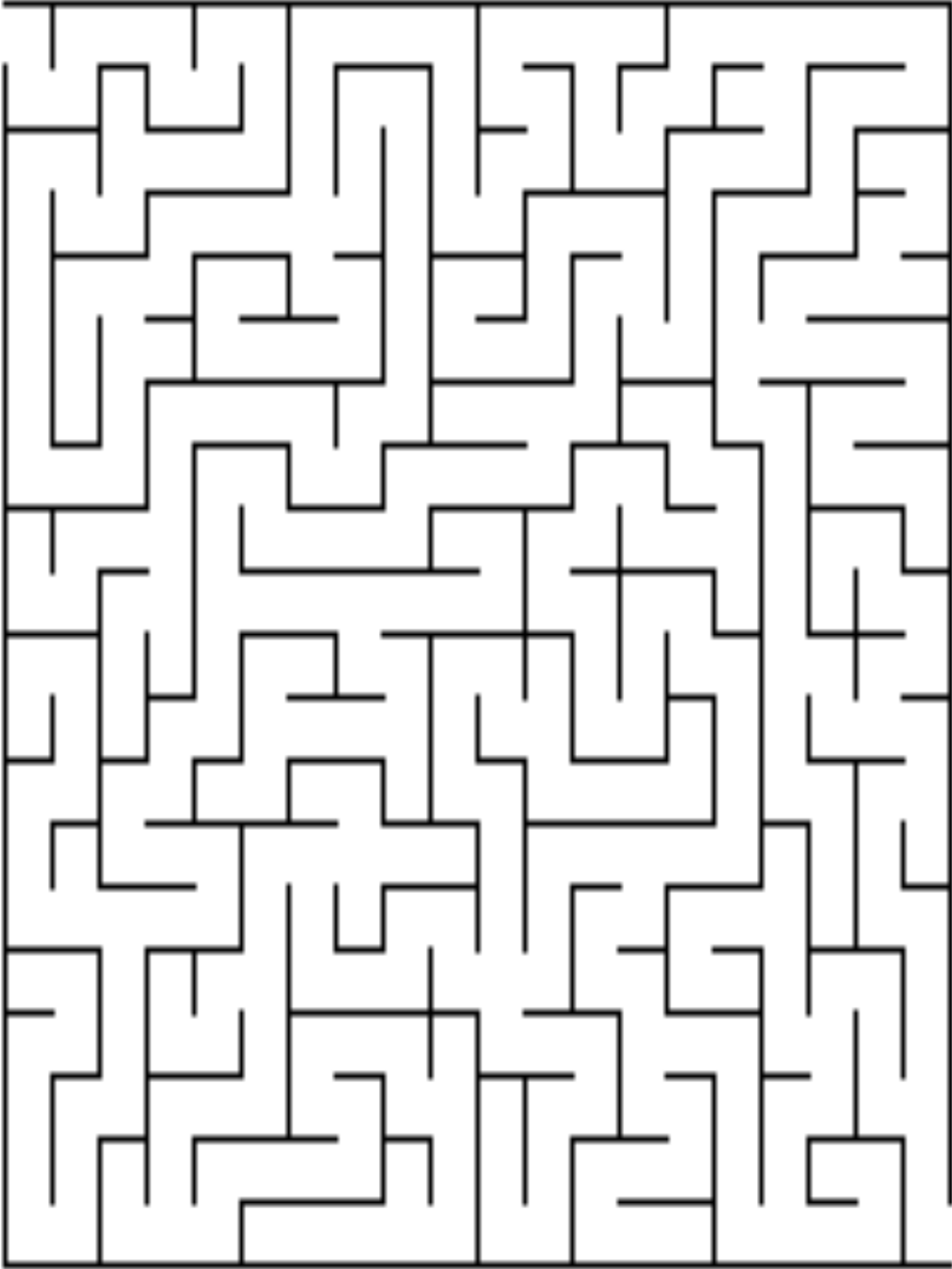
Right Wall Follow

Left Wall Follow

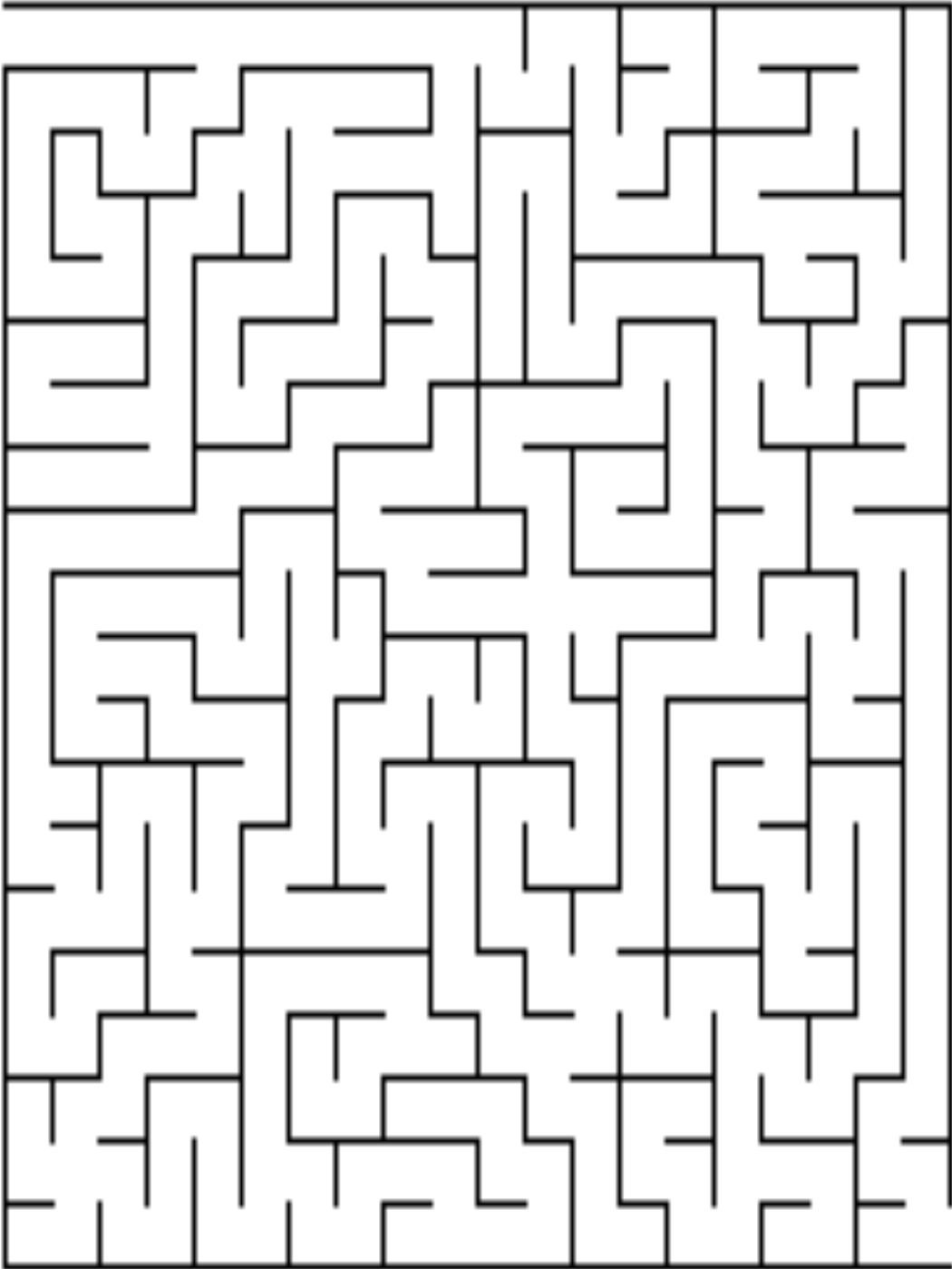
**Dead End Filling Algorithm;** Dead-end filling is an algorithm for solving mazes that fills all dead ends, leaving only the correct way unfilled. It can be used for solving mazes on paper or with a computer program, but it is not useful to a person inside an unknown maze since this method looks at the entire maze at once



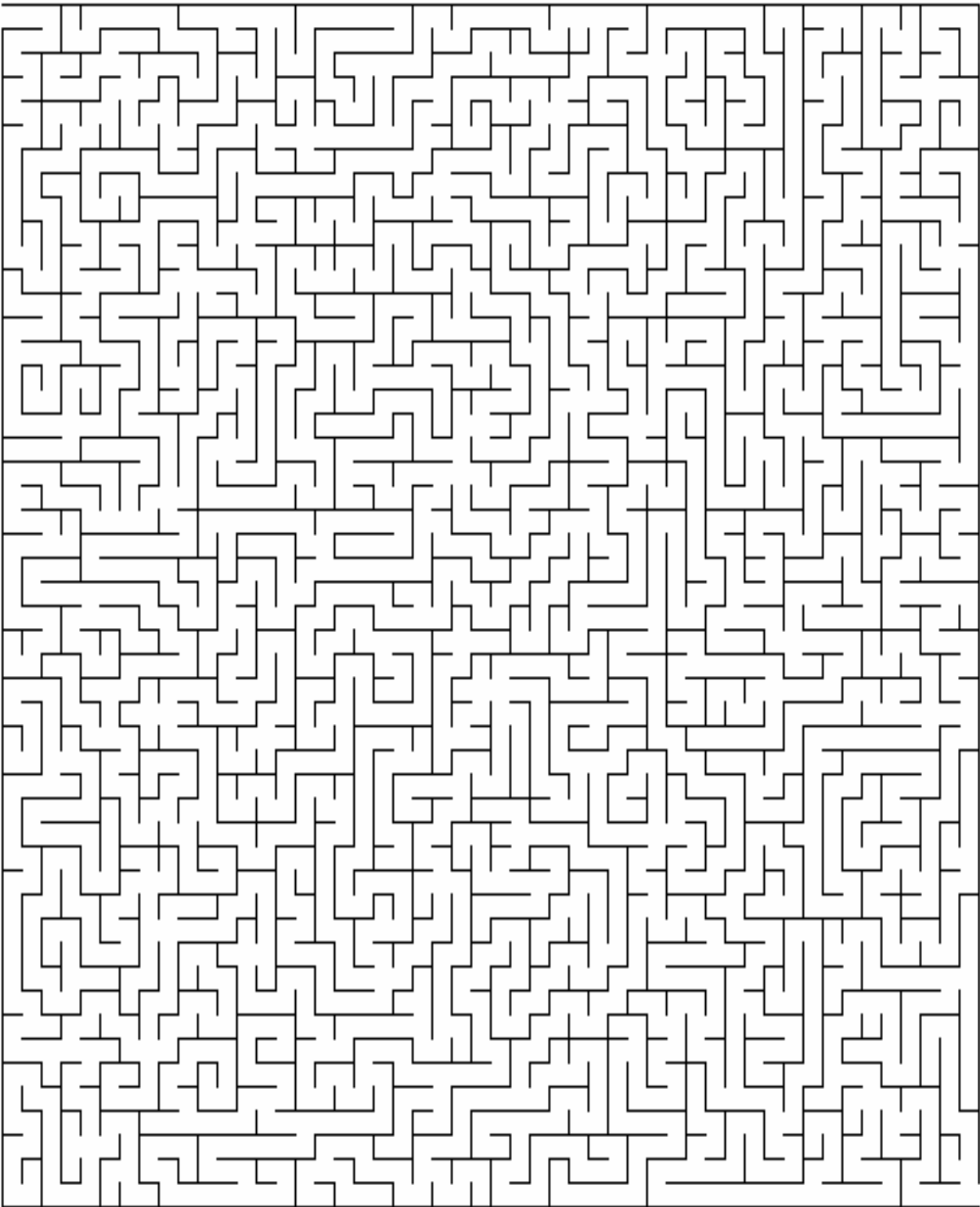
MAZE 1



Maze 2



Maze 3



Maze 4

