

# Learning to Play Tic Tac Toe

This document explains the rules of classic Tic Tac Toe along with a few common tactics and scenarios.

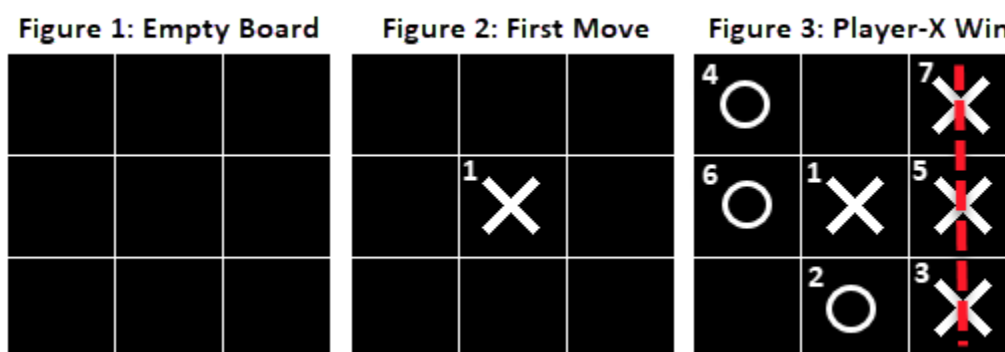
## Before Starting

- Tic Tac Toe is a two player game. Before each game, each player picks a symbol, typically an X or an O, to mark their moves throughout the game. This document refers to a player who chooses X as player-X, and a player who chooses O as player-O.
- Decide who gets to make the first move. A player's choice of symbol has no bearing on who goes first, however player-X will always go first in the examples that follow later in this guide.
- Tic Tac Toe traditionally involves drawing on paper with a pen or pencil. You can collect these items if you want, but this guide includes a link to an online Tic Tac Toe game for you to play.

## The Game Board

A classic Tic Tac Toe game board consists of a 3x3 grid of square regions as shown by Figure 1; each region acts as a space for making a move. You can either create your own board, or play online. Traditionally, players draw the game board on paper with a pencil by drawing a pound/number sign (#).

- Throughout this document, a number in the top-left corner of a space that contains either an X or an O represents the turn associated with a move. For example, the number 1 in Figure 2 signifies the first turn. These numbers serve an instructional purpose, but are not part of the game.



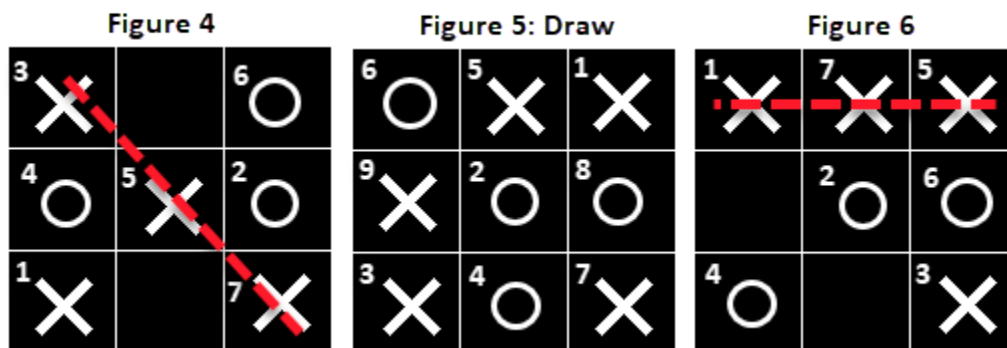
## Taking Turns

During each turn, one player places or draws the symbol they picked before the game in an empty space on the game board. Players alternate turns until the game ends in one of two outcomes:

1. One player wins by placing three of their symbols in either a horizontal, vertical, or diagonal straight line.
2. The game ends in a draw if:
  - a. Neither player has three symbols in a row and no empty spaces remain on the board.
  - b. Both players agree to a draw.

## Tips and Tactics

- **Inspect the board carefully before making each move.** If your opponent already has two symbols in a row somewhere, block them to prevent them from achieving three in a row. However, don't block them instead of winning yourself! Always check to see if you have a winning move.
- **If you have the first move, always move in a corner.** The board is symmetrical, so it does not matter which corner you pick.
- **If you have the second move and the opponent has taken a corner, play in the center or you will lose** (unless your opponent makes a big mistake). The best outcome in this case is a draw. Figure 5 shows a scenario where player-O achieves a draw by playing in this way. Figure 6 shows a scenario where player-O achieves a draw by playing in this way. What would happen if player-O moved in a corner on turn 4 instead of on an edge?



## Practice and Play

Click the following link to access an online Tic Tac Toe game board: <https://playtictactoe.org/>

- This site allows you to play against a computer, another person, or yourself by toggling the **1P/2P** button near the bottom-right corner of the game board.
- Try reenacting the order of moves depicted in the previous examples to gain perspective. Think through each step carefully. Try exploring different possibilities.
- Have fun, it's a game!