

# Tic-Tac-Toe

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## Rules

Suppose we have a  $4 \times 4$  tic-tac-toe board. The board is divided into four  $2 \times 2$  boards. You must fill out the cells one at a time. When we play an X in one of the corners, your next move must be in the corresponding  $2 \times 2$  board (see below image for clarification.) Find, with proof, the maximum number of Xs that can be placed in this way such that 3 consecutive Xs do not exist.

## Example

