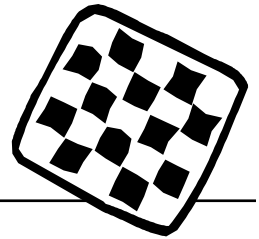


Achi: A Strange Game of Tic Tac Toe - Advanced



Strategize to be the first player to make 3 in a row.

What you need

Game board

4 game pieces for each person/team

What to do

1. If there are more than 2 people, divide into teams.
2. Decide who goes first.
3. Take turns placing a piece on the game board. The goal is to get three of your game pieces in a row.
4. If no one has three pieces in a row after all eight game pieces have been placed, the players will start taking turns moving pieces.
5. During their turn, a player slides a game piece along a line to an empty space. You cannot jump over another piece or skip a turn.
6. Keep taking turns until a player has made three in a row of his color.

What to ask

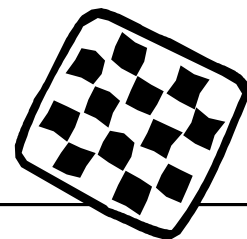
- Look for the pattern of the winning strategy. What patterns did you find?
- How can you be sure to always win?
- Does it make a difference who goes first?



Did you know?

The ability to predict possible events and consequences helps in making choices. Playing games and using strategies to win are ways that we learn to gather data and make predictions. We say to ourselves, “If I move here and then she moves here, then I can do this or that.” These reflective strategies players use during a game like chess or checkers, where strategy is the key, are ways to develop this kind of mathematical thinking. State your thinking strategy out loud to help others develop theirs.





What's next?

- Make up your own game board, changing where the lines go.
- Find a winning strategy.
- How many more pieces would you need?
- Add more spaces to the game board.
- Make up a game of your own.

To learn more

12 Ways to Get to 11

by Eve Merriam

Where is eleven? Perhaps eleven is with the sow and her ten piglets. Maybe it's on the jack-o-lantern with its two eyes, one nose and eight teeth. A dozen colorful and engaging spreads present children with a cornucopia of intriguing objects to count in order to find where eleven is hiding. It all adds up to an imaginative counting adventure.

Ben Franklin and the Magic Squares

by Frank Murphy

A funny, entertaining introduction to Ben Franklin and his many inventions, including the story of how he created the "magic square." Step-by-step instructions for creating your own magic squares are included.

How it helps with school

Texas Essential Knowledge and Skills (TEKS) Standards

Patterns, Relationships, and Algebraic Reasoning: 3.6A; 5.5A

Probability and Statistics: 3.14C; 5.12B

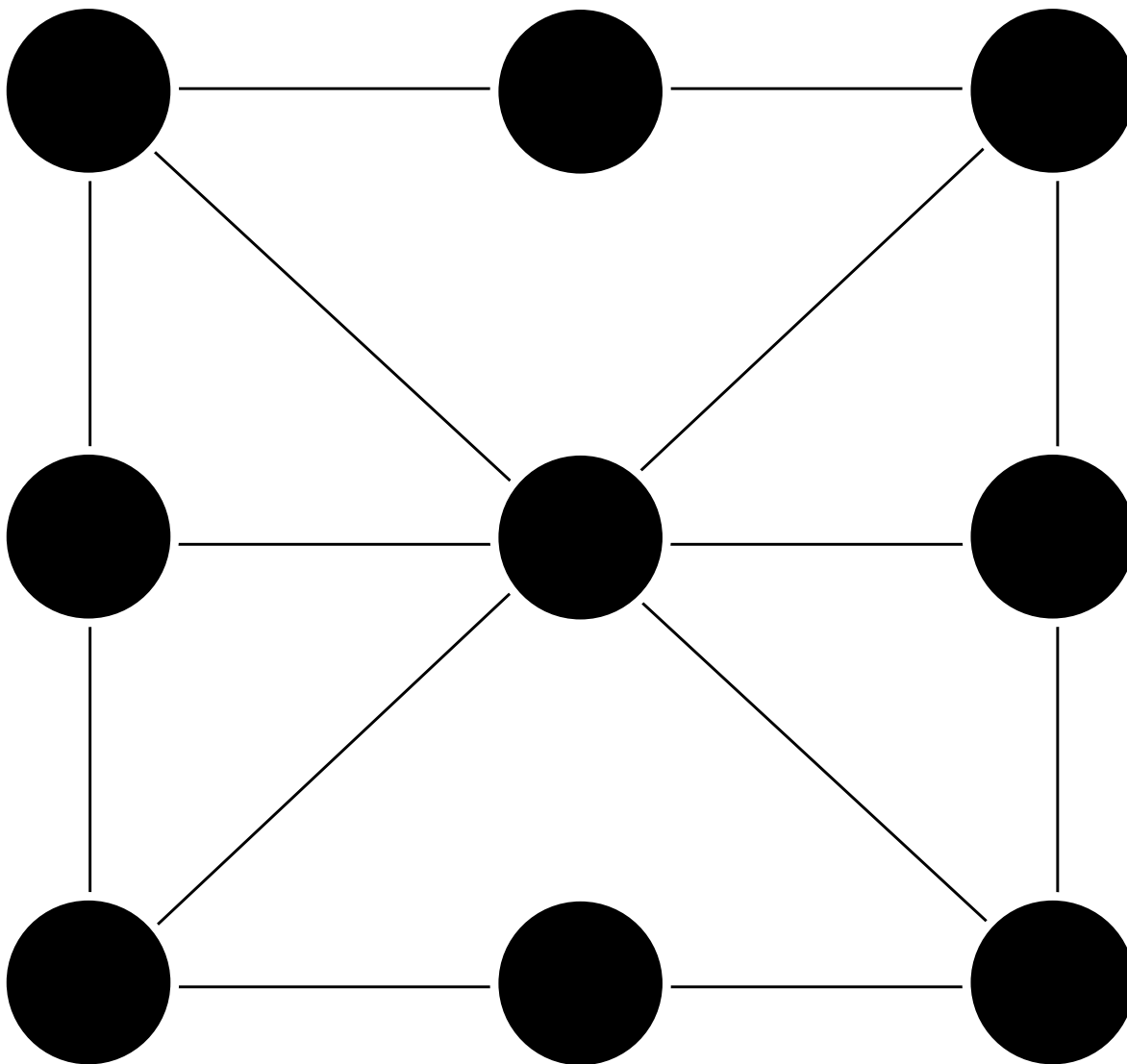
Underlying Processes and Mathematical Tools: 3.17; 4.16; 5.16

National Council of Teachers of Mathematics (NCTM) Standards

Data Analysis and Probability, Algebra, Problem Solving

Activity inspired by Dr. Nita Copley, University of Houston

Achi Gameboard One



Achi Gameboard Two

