Number Grid Tic-Tac-Toe

How to play

A hundreds-chart game for 2 or 3 players. About 20 minutes.

You need

One blank board (Boards A to F), a different colored pencil for each player, and an eraser. Pencils are better than markers: mistakes happen, and fixing them is part of the game. Or play on screen, passing one device: schoollaunch.org/courses/math/games/number-grid-tic-tac-toe/

How to play

1. Choose who goes first. Take turns.
2. On your turn, pick any blank square and write the number that belongs there in your color. You may count from a number already on the board, or work it out in your head.
3. Four of your squares in a row, a column or a diagonal is a tic-tac-toe. It is worth 1 point. Keep score with tally marks next to your name.
4. A square can be part of only one tic-tac-toe. Five in a row still scores 1 point; you need four fresh squares for the next one.
5. Numbers printed on the board before you start belong to nobody. They never count toward anyone's tic-tac-toe.
6. Play until the board is full. Then check every number together (the answer key helps). A tic-tac-toe with a wrong number in it is crossed out. The most points wins.

Three players

With three players, three in a row scores a point. Everything else is the same.

When a number is in the wrong place

A grown-up who spots a wrong number does not have to say anything. As the board fills in, players notice that something does not fit and must work out which square is wrong and fix it. A good question to ask: "How will you know if a number is in the wrong place?"

Ways to change the game

- Board B goes to 120. Board C (Helper) shows the tens column. Board D (Scattered clues) has no 1 or 100, only a few numbers dotted around.
- Board E counts by tenths, from 0.1 to 10.0. Board F is the times table: each square is its row number times its column number.
- Ideas from the children who first played it: give half a point for three in a row, 2 points for five in a row, or a point to the other player when someone gets stuck.

Good questions while you play

What number is one square down from 46? One square to the right? Up and to the left? How did you find 83 without counting from 1? Where should the next player go, and why?

Game idea: Number Grid Tic-Tac-Toe by Joe Schwartz, Exit 10A blog, January 2016 (exit10a.blogspot.com/2016/01/i-like-this-game-because-you-have-to.html).
Board design by School Launch (schoollaunch.org). Free to print for home and classroom use.

Number Grid Tic-Tac-Toe

Board A: 1 to 100

The 1 and the 100 are filled in. They do not count for anyone.

Player 1 _____
color and tally marks

Player 2 _____
color and tally marks

Player 3 (if 3 play) _____
color and tally marks

1									
									100

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Board B: 1 to 120

Two extra rows. The 1 and the 120 are filled in and do not count.

Player 1 _____
color and tally marks

Player 2 _____
color and tally marks

Player 3 (if 3 play) _____
color and tally marks

1									
									120

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Board C: Helper board, 1 to 100

Easier: the 1 and the whole tens column are filled in. Printed numbers do not count.

Player 1 _____
color and tally marks

Player 2 _____
color and tally marks

Player 3 (if 3 play) _____
color and tally marks

1									10
									20
									30
									40
									50
									60
									70
									80
									90
									100

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Board D: Scattered clues, 1 to 100

Harder: no 1 and no 100, just a few numbers dotted around. Printed numbers do not count.

Player 1 _____ color and tally marks

Player 2 _____ color and tally marks

Player 3 (if 3 play) _____ color and tally marks

			14						
						27			
								39	
	52								
					66				
		83							
				95					

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Board E: Decimals, 0.1 to 10.0

Count by tenths. The 0.1 and the 10.0 are filled in and do not count.

Player 1 _____
color and tally marks

Player 2 _____
color and tally marks

Player 3 (if 3 play) _____
color and tally marks

0.1									
									10.0

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Board F: Times table to 10 × 10

Each square is its row number times its column number. The edge numbers are only labels.

Player 1 _____
color and tally marks

Player 2 _____
color and tally marks

Player 3 (if 3 play) _____
color and tally marks

×	1	2	3	4	5	6	7	8	9	10
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

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