



Bizz Buzz

Number of players: $N \geq 2$ (more the better, but ideally not 3 or 7)

Instructions: on your turn, your number is one higher than the last player's number; the first player's number is one, then two, then three, etc. Normally, you will just say this number. However, if it is divisible by 3, then instead you say "bizz," and if it is divisible by 7, then you say "buzz." Also, if your number is divisible by both 3 and 7, then you say "bizz-buzz." If you say the wrong thing, then your group loses a life. Your group starts with N lives (the number of players in your group); see how high you can get before you lose all your lives!

Example: the first player says "one"; the next player says "two"; the next player says "bizz" (because 3 is a multiple of 3); then "four"; then "five"; then "bizz" (6 is a multiple of 3); then "buzz" (7 is a multiple of 7); then "eight"; then "bizz" ($9 = 3 \times 3$); then "ten"; etc.

Variation #1: change 3 and/or 7 to other numbers; for example, say "bizz" on multiples of 4 and "buzz" on multiples of 6.

Variation #2: besides bizz and buzz, say "bang" for prime numbers (a number bigger than 1 whose only whole-number divisors are 1 and itself, like 2, 3, 5, 7, 11, etc.). So the play would start "one," "bang" (2 is prime), "bizz-bang" (3 is a multiple of 3 and prime), "four," "bang" (5 is prime), "bizz" (6 is a multiple of 3), "buzz-bang" (7 is a multiple of 7 and prime), "eight," "bizz" ($9 = 3 \times 3$), "ten," etc. Or play with only bizz and bang, or only buzz and bang.

Variation #3: instead of prime numbers, have "bang" for square numbers ($1^2 = 1 \times 1 = 1$, $2^2 = 2 \times 2 = 4$, $3^2 = 3 \times 3 = 9$, $4^2 = 4 \times 4 = 16$, etc.), or for triangle numbers (1 , $1 + 2 = 3$, $1 + 2 + 3 = 6$, $1 + 2 + 3 + 4 = 10$, etc.), or whatever type of numbers you like; or keep "bang" for primes, and add "squidge" for squares or another new type; or whatever combination you'd like!

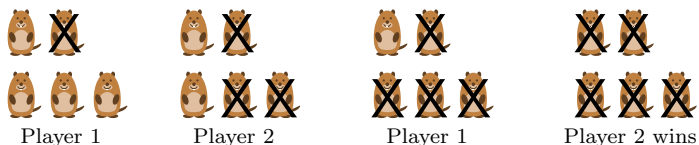


Nim

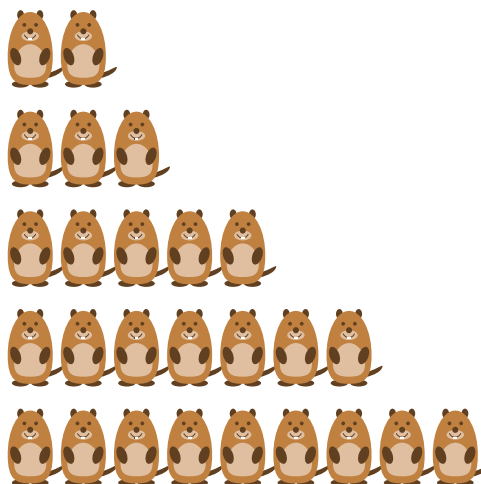
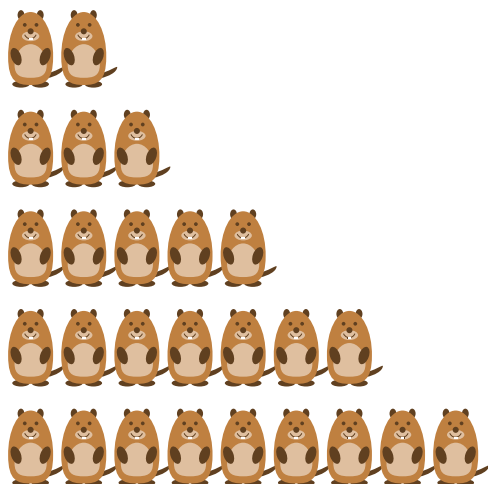
Number of players: $N = 2$

Instructions: on your turn, choose any row that still has at least one marmot, and remove (cross out) any number of marmots in that row. Whoever takes the last marmot wins.

Simple example:



Game boards:





Sprouts

Number of players: $N \geq 1$

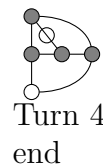
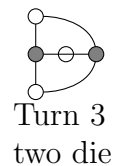
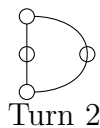
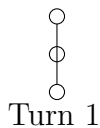
Instructions: start with three open dots (small circles), which means they're alive. On your turn, you draw a line to connect any two alive dots; the line can curve and wiggle but can't cross any existing line. Draw a new alive dot somewhere along the line you drew. If any dot now has three lines coming out of it, then it dies, and you fill it in.

Goal: see how long you can keep the sprouts going before you can't connect any two living dots without crossing an existing line (or all but one are dead).

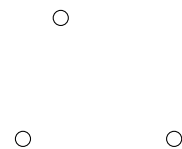
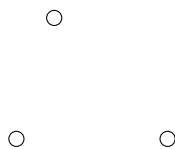
Variation: see how few turns you can use before you can't connect any two living dots.

Variation: start with four dots (or any number you want).

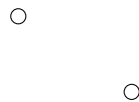
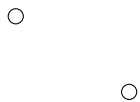
Example (two-dot start):



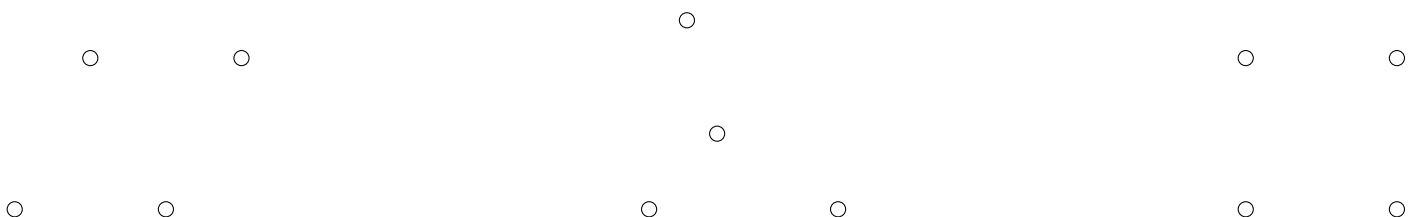
Starting positions (three dots):



Starting positions (two dots):



Starting positions (four dots):



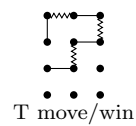
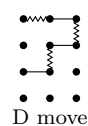
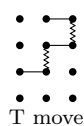
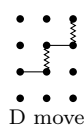
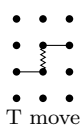
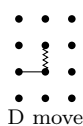
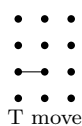


Snake

Number of players: $N \geq 2$

Instructions: Player 1 draws a horizontal --- or vertical ⌋ line to connect any two adjacent dots. Player 2 starts at the dot where Player 1 stopped, connecting it to a vertically or horizontally adjacent dot that was not yet part of the snake. Keep taking turns, adding one segment to the snake every turn. The game ends when there is no legal move left (all adjacent dots are already part of the snake).

Example game sequence (two players):



Game boards (or draw your own):

