



# A-Maze-ing Mazes

## Welcome to Algorithopoly!

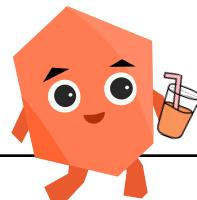
Greetings from the sunniest, summer-like planet in the galaxy, Algorithopoly. Here, Ansel will teach you all about algorithms and how we can use them to perform tasks!

## What is an Algorithm?

An **algorithm** is a **set of instructions used to perform a task**.

We use algorithms in computer science to tell computers how to accomplish a specific task, whether it be generating random numbers or calculating the sum of a list. We can also apply algorithms to everyday tasks like making a PB&J sandwich or baking cookies.

Let's take a look at how Ansel uses an algorithm in the morning to make his fruit smoothie for breakfast!

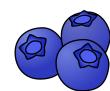


### Ansel's Fruit Smoothie Algorithm

#### START

1. Add 2 frozen bananas
2. Add 1 cup of blueberries
3. Add 1 cup of water
4. Blend for 30 seconds
5. Pour into a cup and enjoy!

#### DONE!



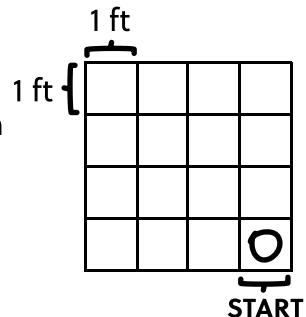
The **order** of an algorithm is important to keep in mind!  
(Would you use the blender before adding the fruit?)



## Maze Craze!

### Setup

- Using masking tape, make a 4 by 4 grid on the floor, with each square being 1 foot long.
- With another piece of tape, mark the bottom right square with an "O". This will be the starting point for your maze!
- Mark one square on your grid to be the finish point with an "X" on your Maze Map below. (Don't show your friend which square you picked!)

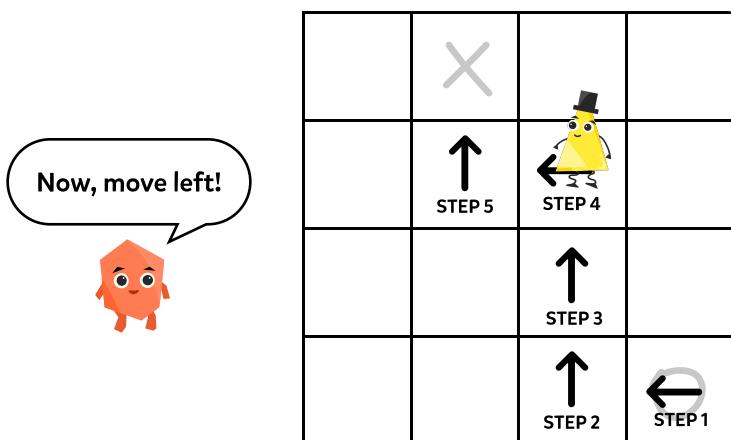


### Directions

- Using the commands "move up", "move down", "move right", and "move left", write a step-by-step algorithm to travel from the starting mark to your finish mark. Use up to 10 steps from the Maze Bank.
- Read your algorithm to your friend while they perform the steps. If they end up at the correct square, you both win!

### Example

Ansel invited his friend Lex to walk the maze!

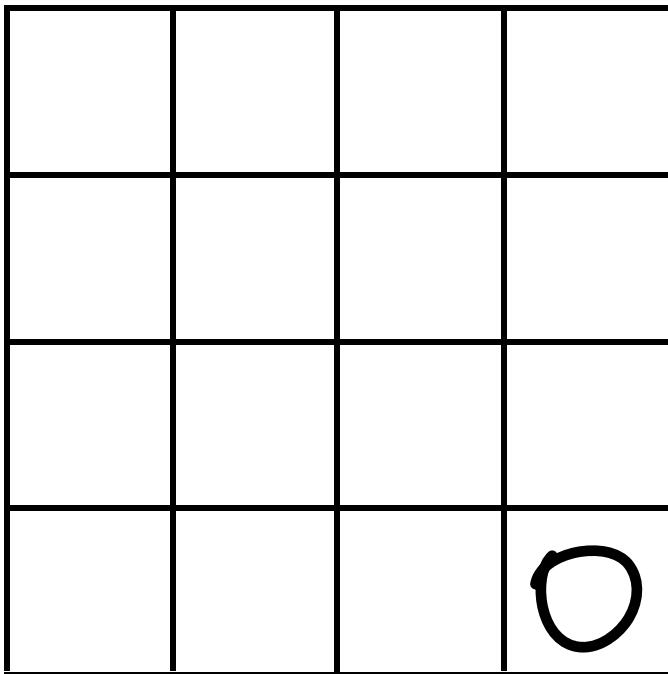


#### Ansel's Maze Algorithm

1. Move left
2. Move up
3. Move up
4. Move left
5. Move up



## My Maze Map



### Maze Bank

↑ Move up

↓ Move down

← Move left

→ Move right

### My Maze Algorithm

1. \_\_\_\_\_

6. \_\_\_\_\_

2. \_\_\_\_\_

7. \_\_\_\_\_

3. \_\_\_\_\_

8. \_\_\_\_\_

4. \_\_\_\_\_

9. \_\_\_\_\_

5. \_\_\_\_\_

10. \_\_\_\_\_