

# Coordinate Systems

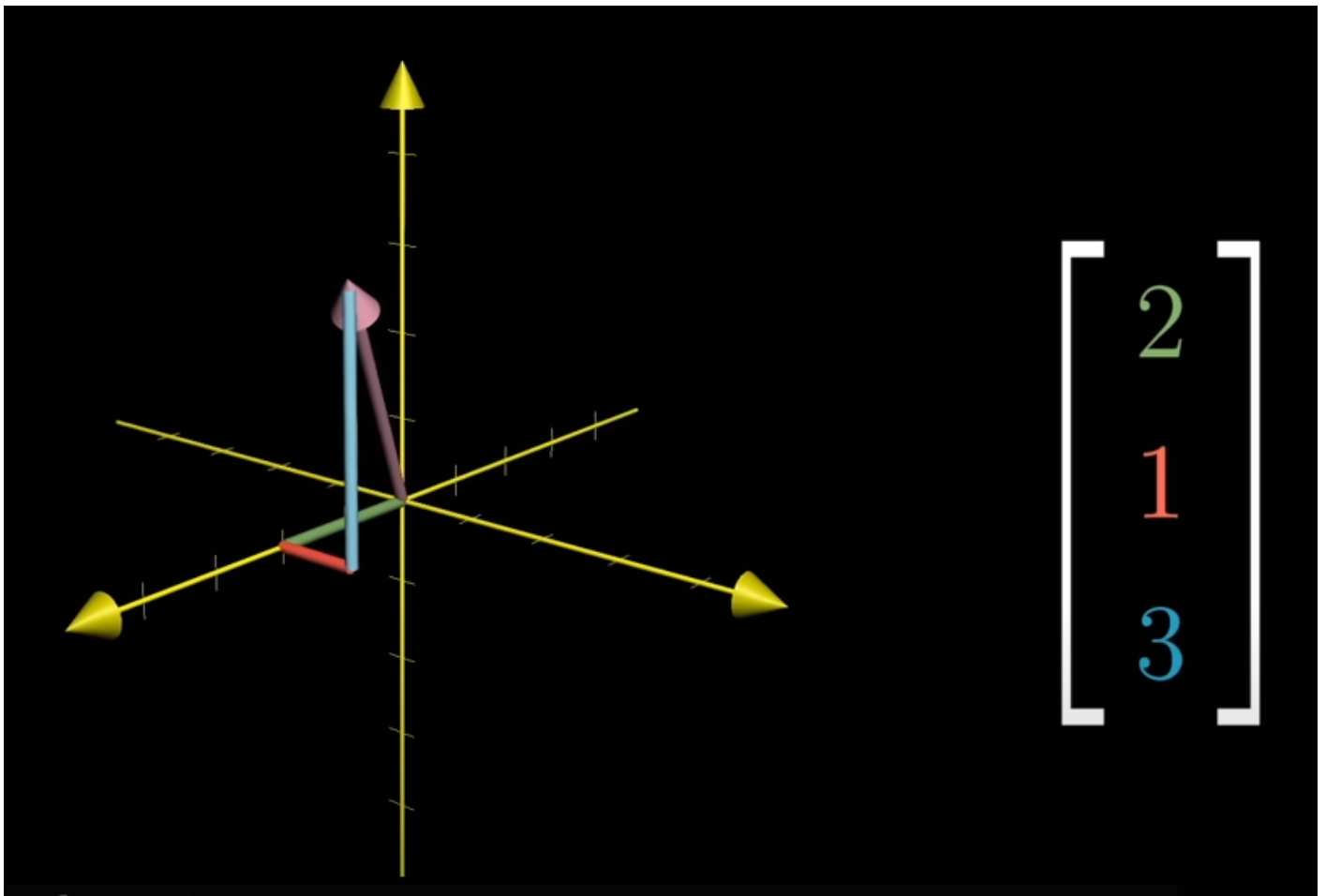
Anyway to translate vectors and sets of numbers is called a coordinate system

- [3D Cartesian Coordinate System](#)

# 3D Cartesian Coordinate System

## 3D Cartesian Coordinate System

### Properties:



- **x-axis** is the horizontal axis
- **y-axis** is the vertical axis
- **z-axis** is axis perpendicular to the x-y plane, pointing outward or inward.
  - Look into left hand and right hand rule
- The point of intersection of the axes is called the Origin, denoted as (0,0,0).
- A point in the plane is represented by an ordered pair (x, y, z)
- A vector in space is represented in above image, where the tail sits on the Origin extends to the arrow tip