

Plotting Statistical and Financial Data with Plotly



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Overview

Plot and customize bubble charts and heat maps

Visualize and analyze time-series data

Plot basic shapes

Use candlestick and funnel charts

Demo

Bubble charts

Demo

Bubble maps

Demo

Heat maps

Demo

Time-series data

Candlestick Charts

Candlestick Charts



Specifically designed to represent financial price information

Open, Close, High, Low



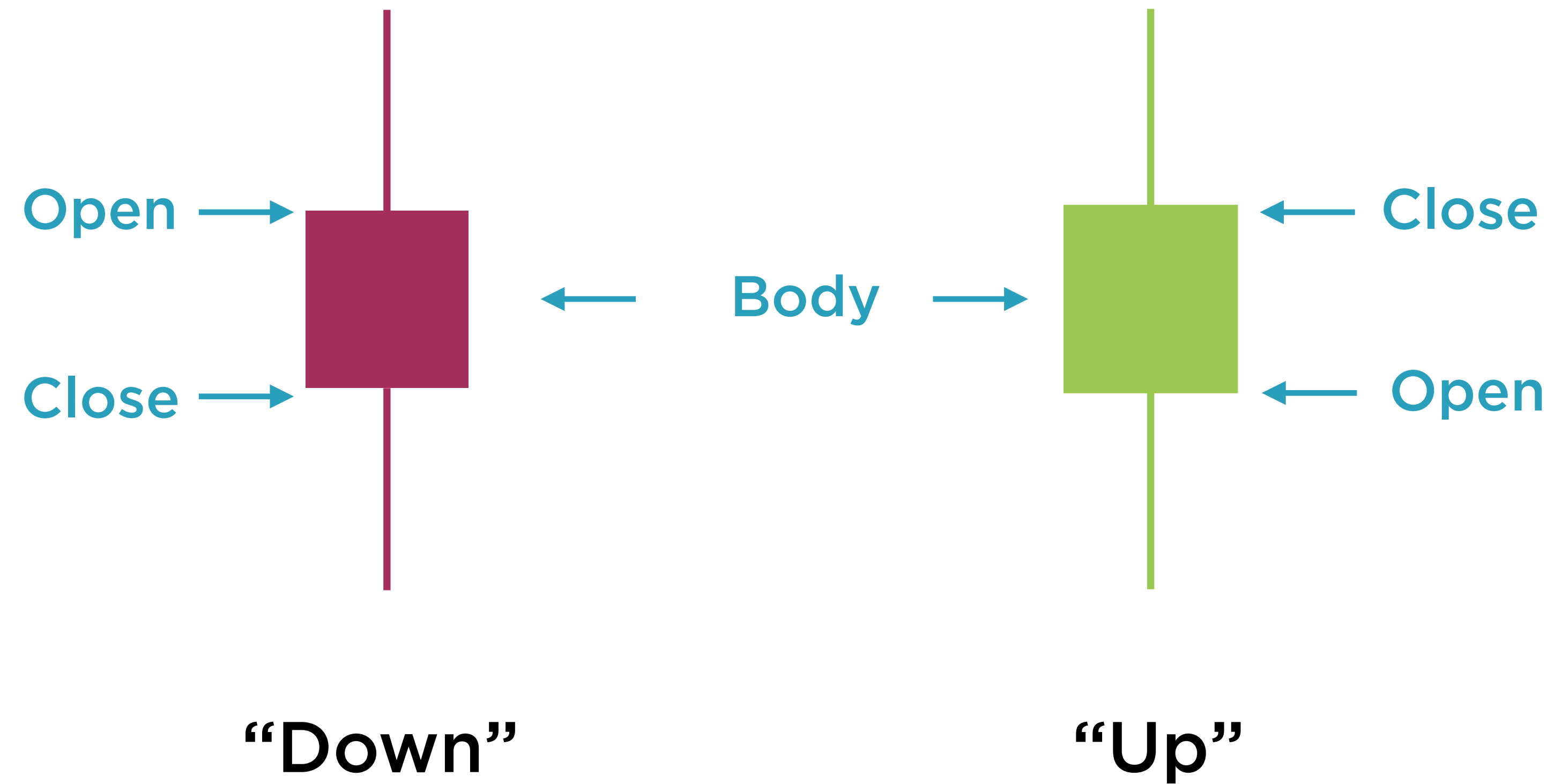
Each data point encapsulates **four items of information**

Color Coding

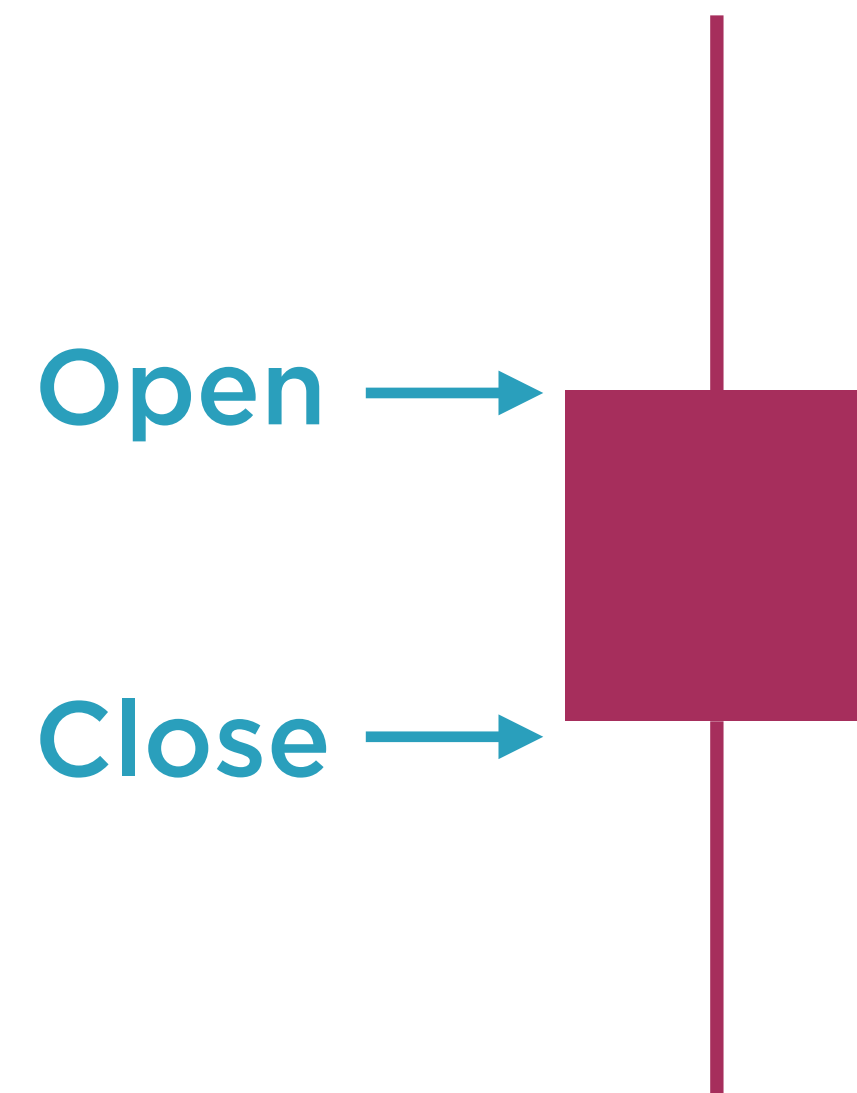


Two different colors to represent “up” and “down” price moves

“Up” and “Down” Price Moves



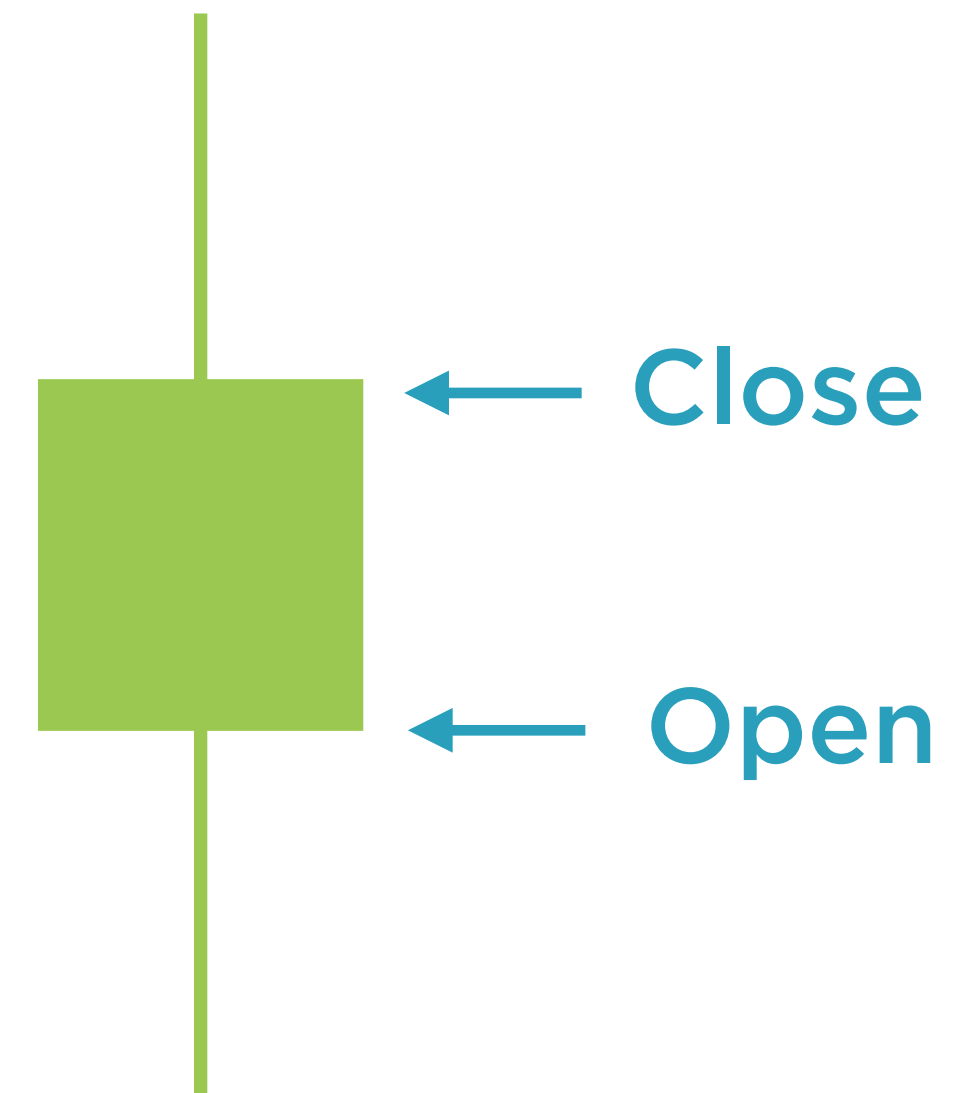
“Down” Price Move



Opening price > Closing price

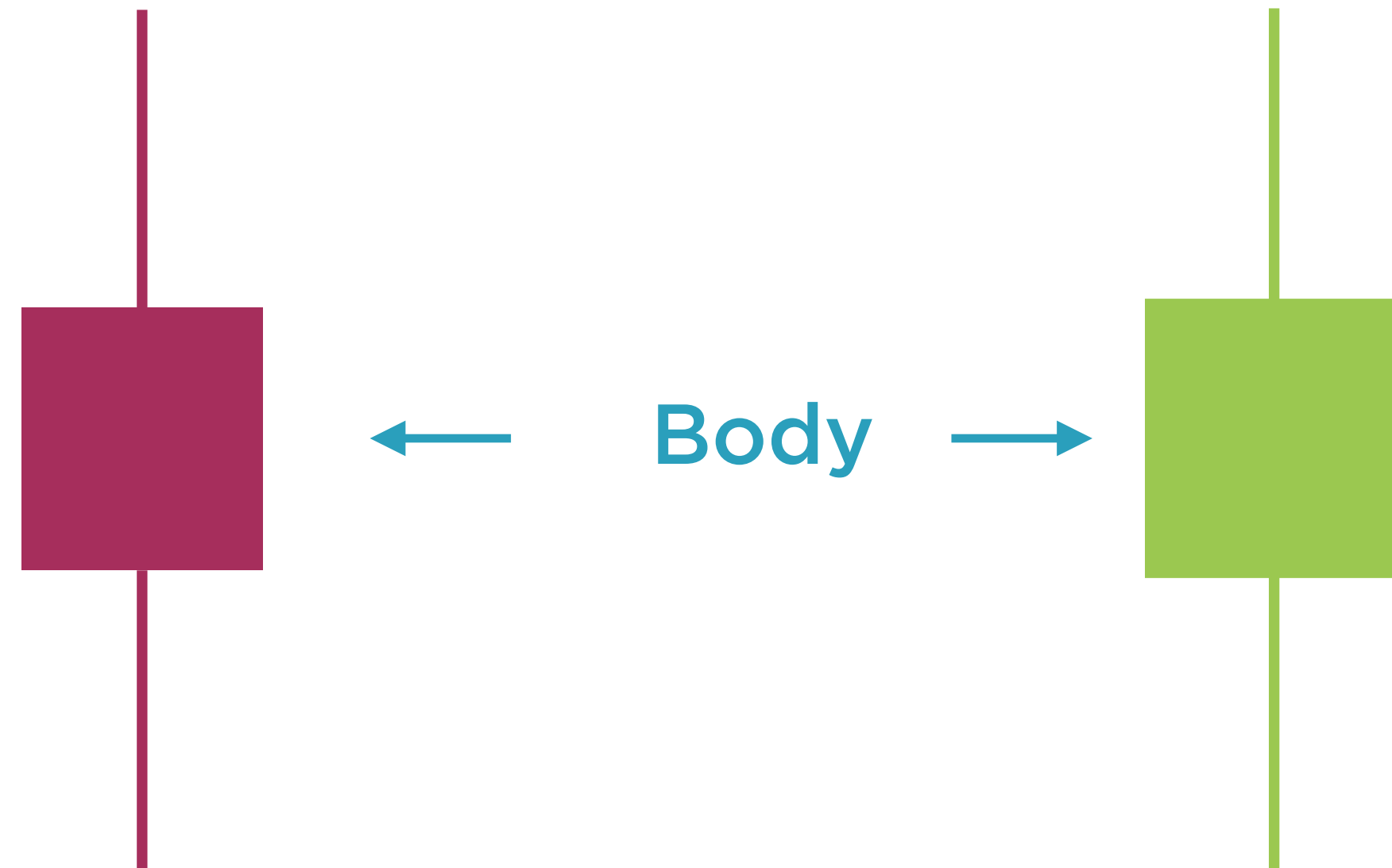
“Up” and “Down” Price Moves

Closing price > Opening price



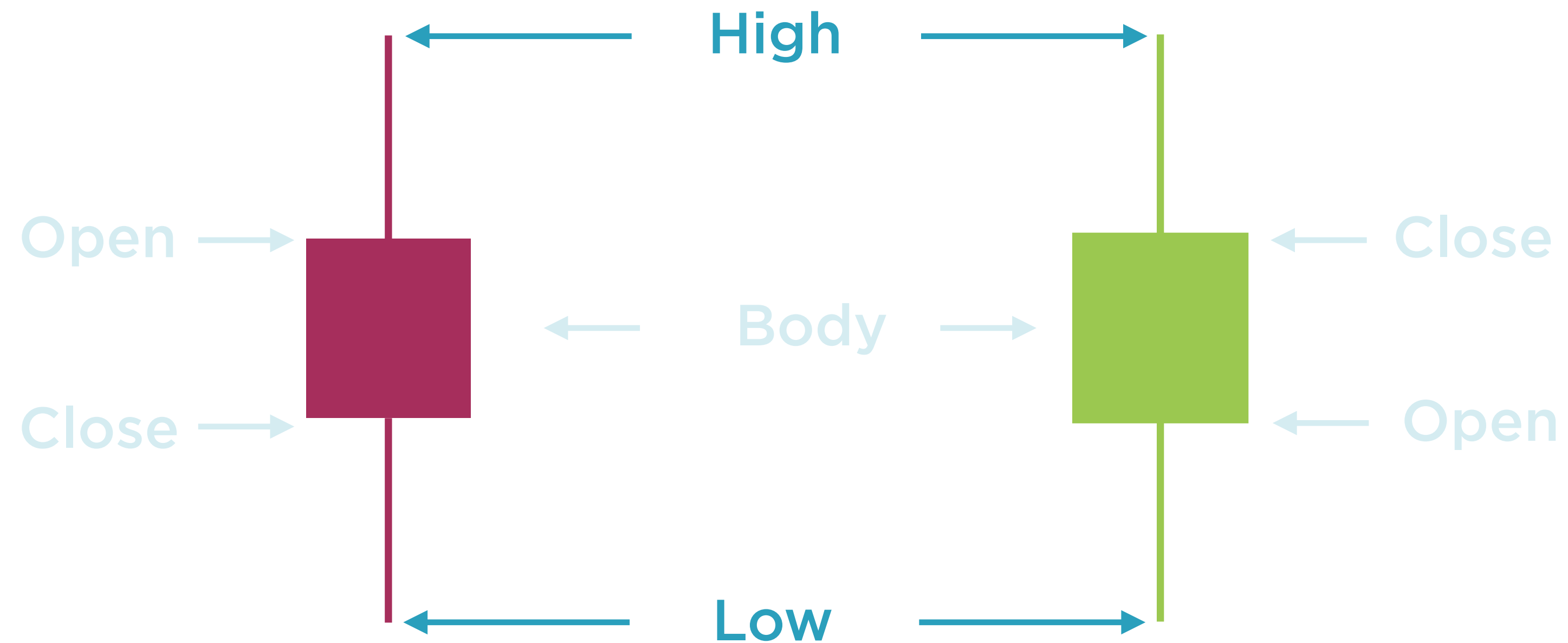
“Up”

Body



The body represents price range between open and close

High and Low



High and low are easy to infer from shape

Demo

Candlestick charts

SVG



Scalable Vector Graphic (SVG)

An XML-based vector image format for two-dimensional graphics with support for interactivity and animation, based on an open standard

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An **XML-based vector image format** for two-dimensional graphics with support for interactivity and animation, based on an open standard

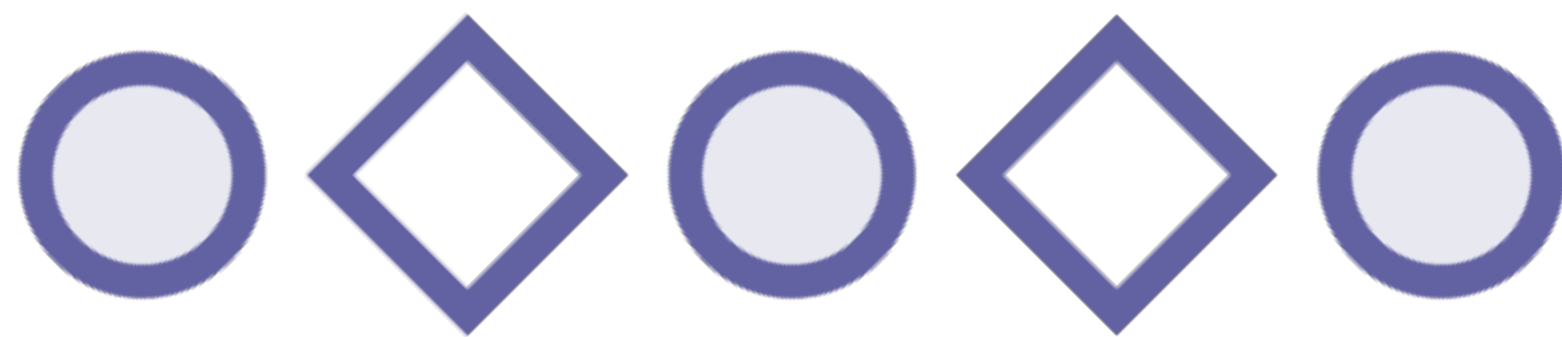
Scalable Vector Graphic (SVG)

An XML-based vector image format for **two-dimensional graphics** with support for interactivity and animation, based on an open standard

Scalable Vector Graphic (SVG)

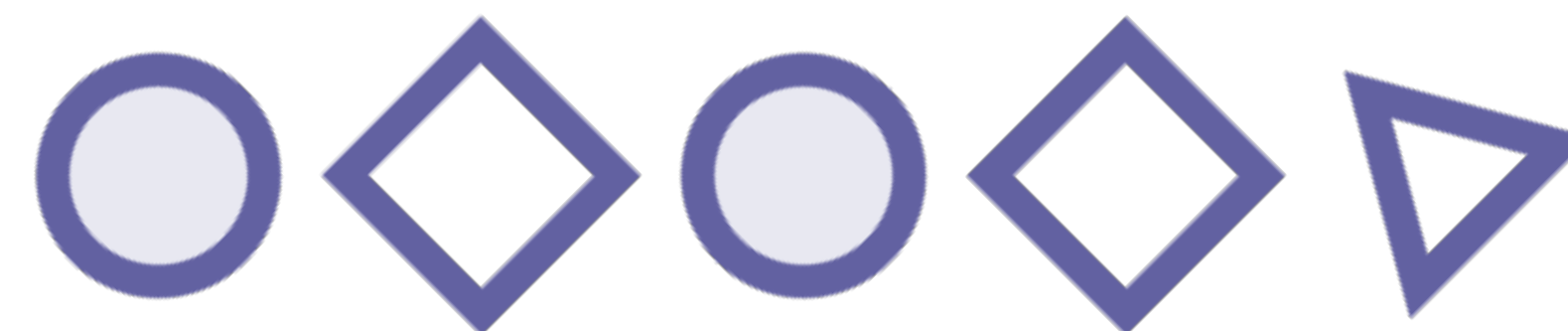
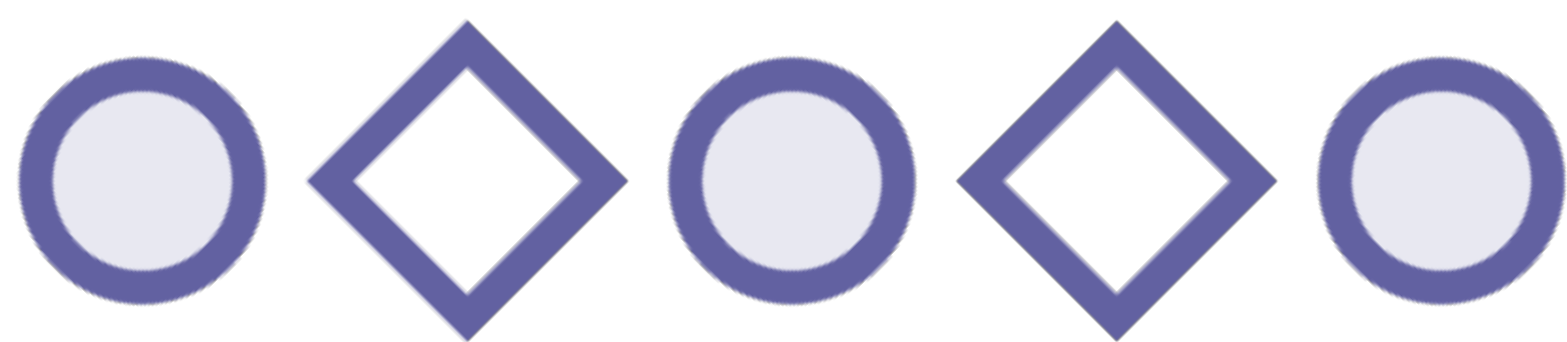
An XML-based vector image format for two-dimensional graphics with **support for interactivity and animation**, based on an open standard

SVG



**Used to draw shapes using a vector
representation**

SVG

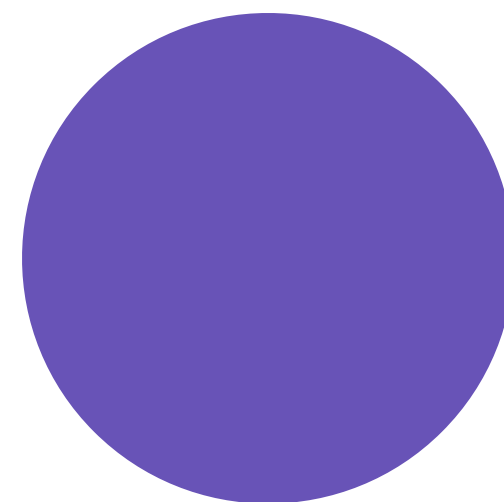


XML format for shape specification

SVG Shapes



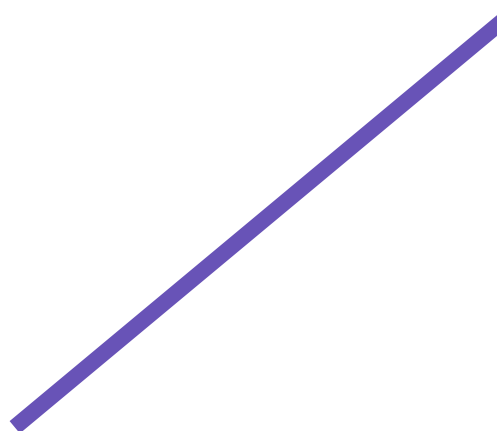
Rectangle



Circle



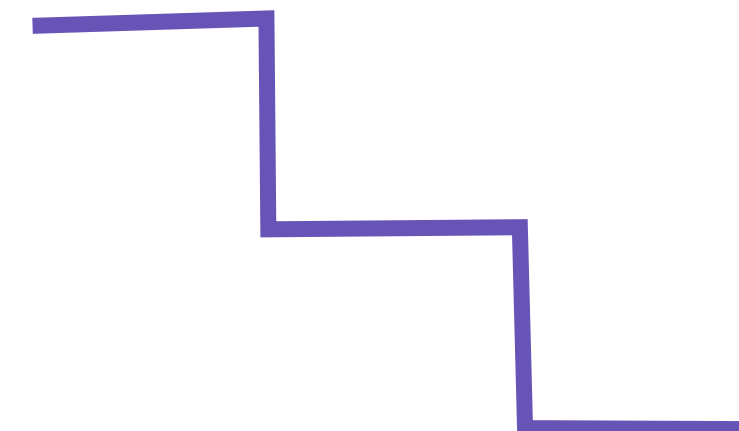
Ellipse



Line



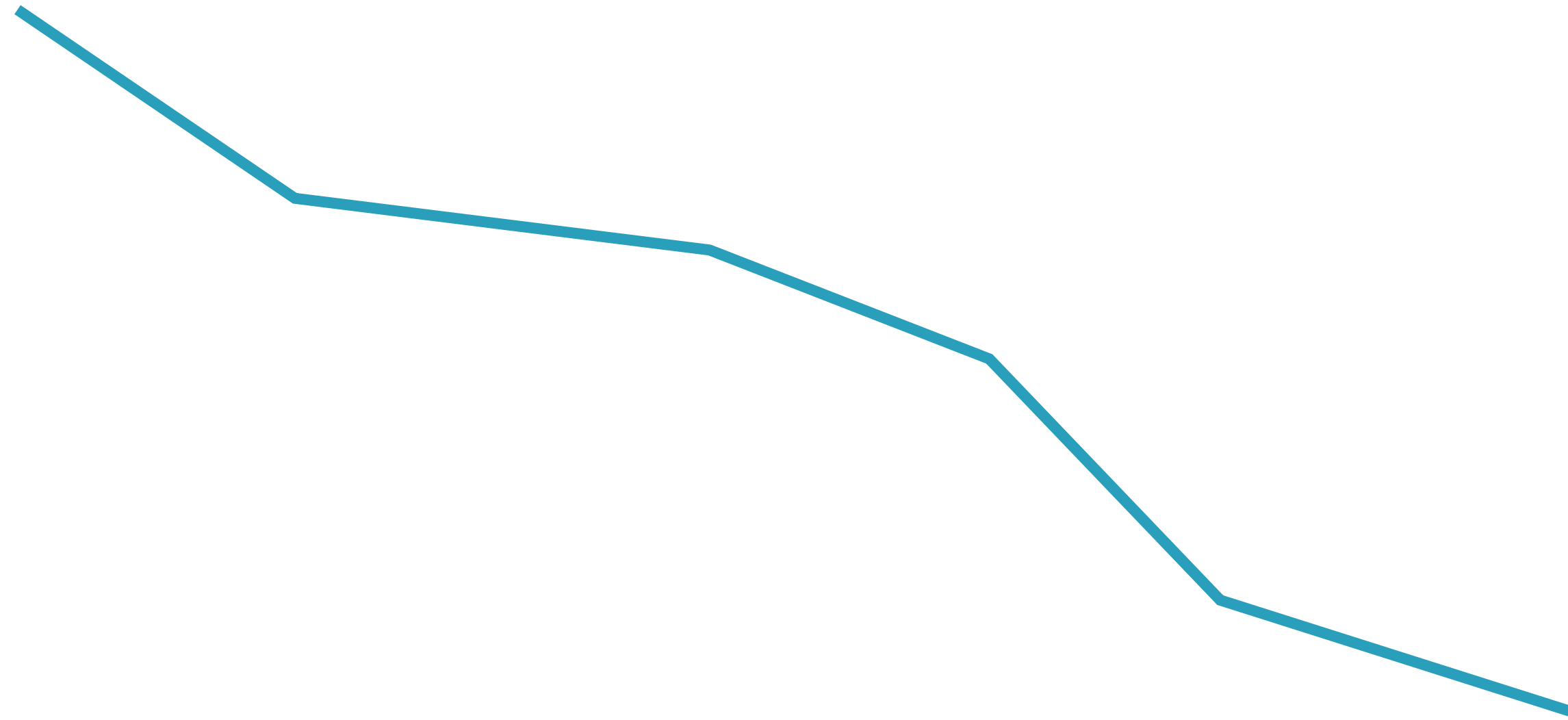
Polygon



Polyline

Predefined shape elements

SVG Path



<path> element is used to define a path

SVG Path

M 1,1 L 1,4 L 4,1 Z

Path is defined with a series of commands

SVG Path

M1,1 **L**1,4 **L**4,1 **Z**

Commands

SVG Path

M 1,1 L 1,4 L 4,1 Z

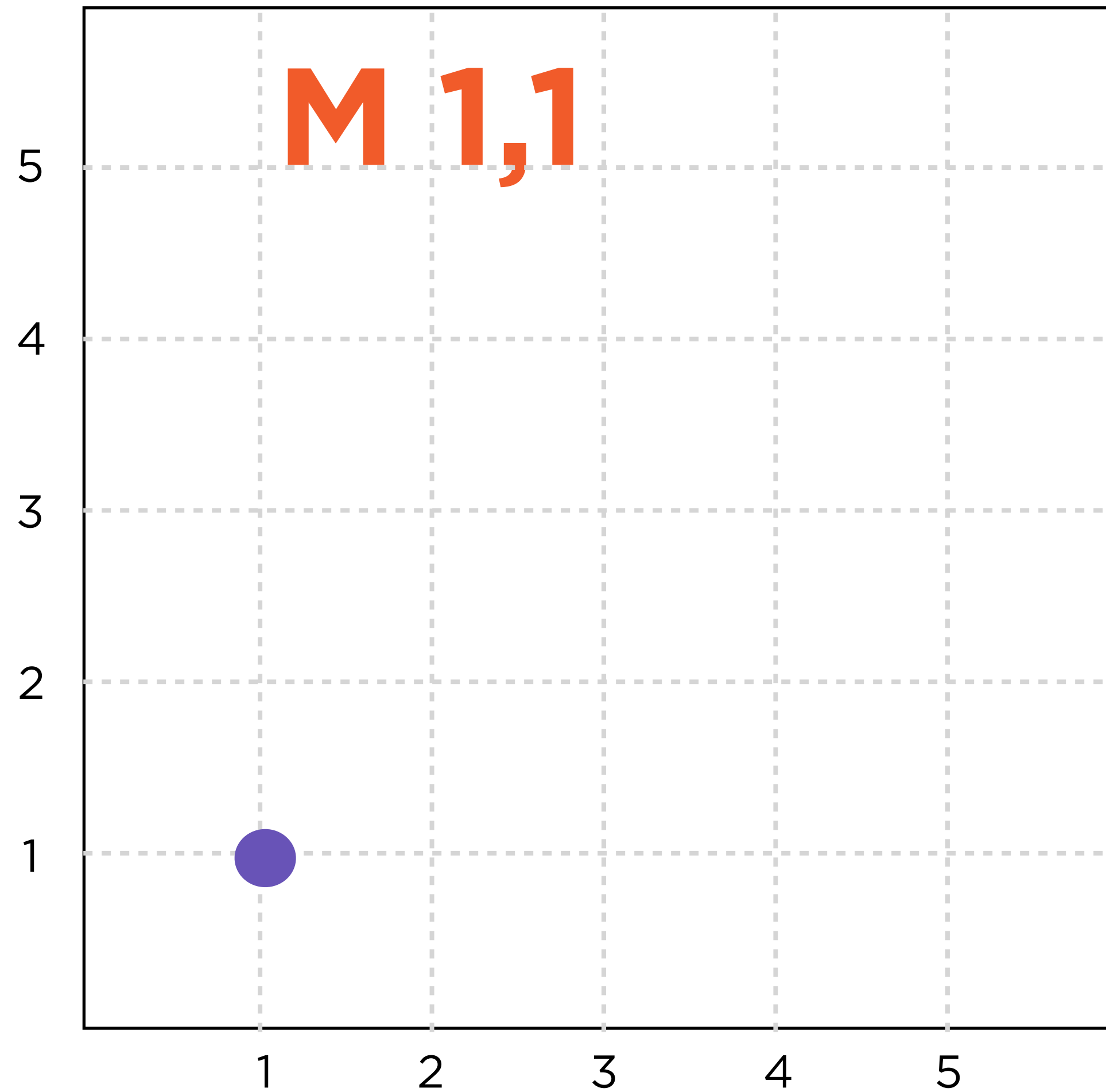
Points on the axes

SVG Path

M	move to	Move from one point to another
L	line to	Create a line
C	curve to	Create a curve
Q	quadratic bezier curve	Create a quadratic bezier curve
Z	close path	Close the path

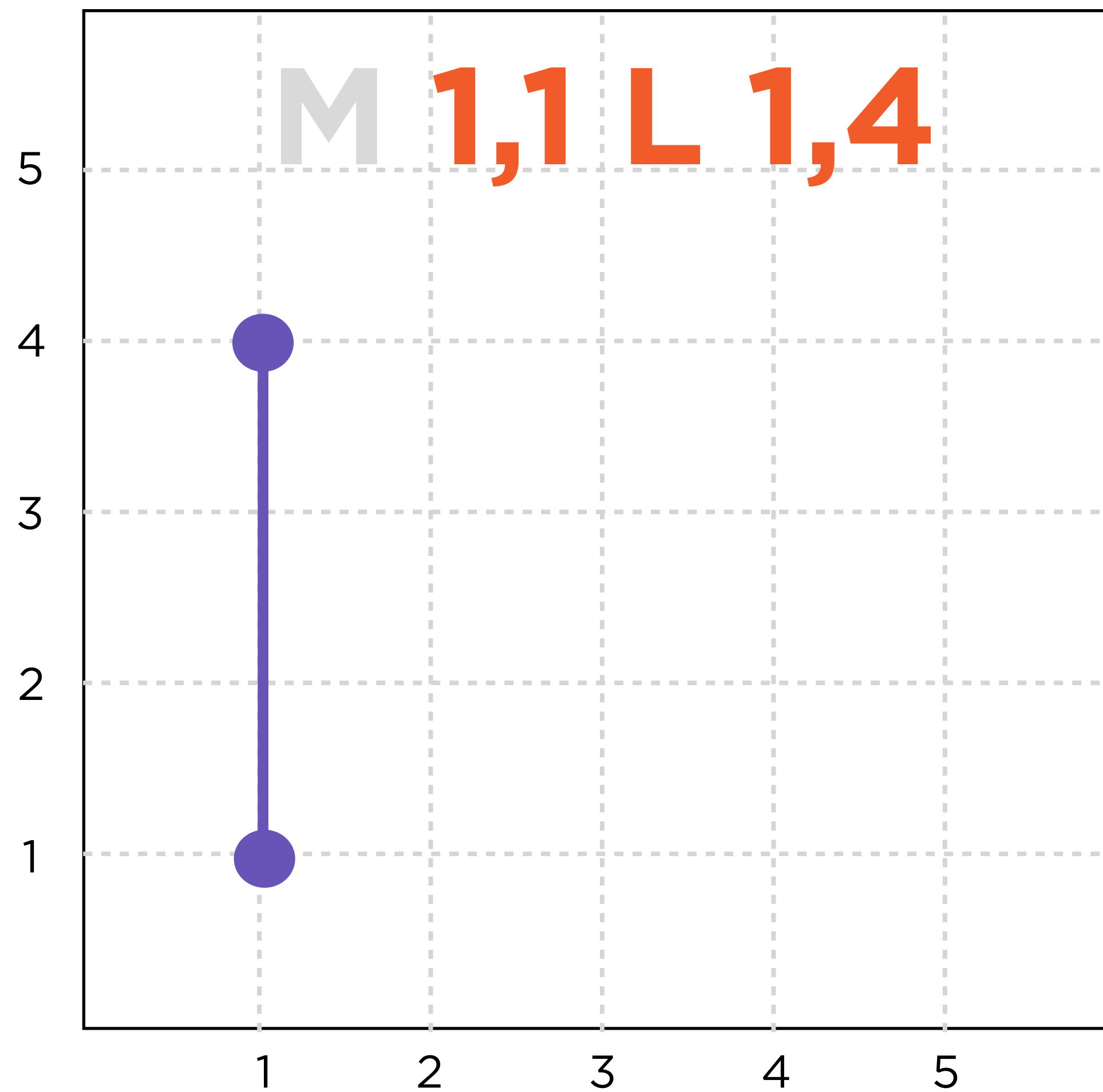
Basic path commands

SVG Path



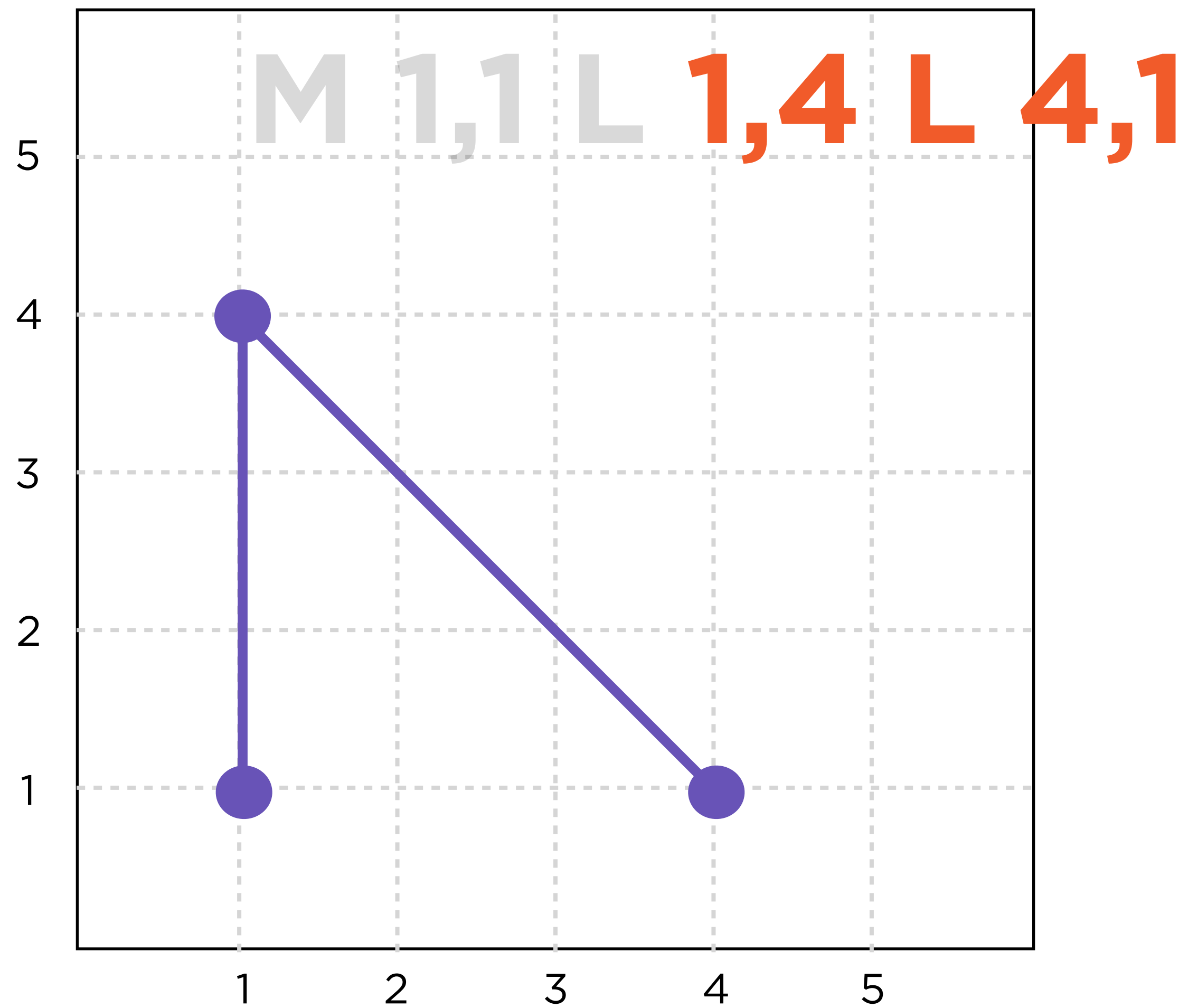
Move cursor to point 1,1

SVG Path



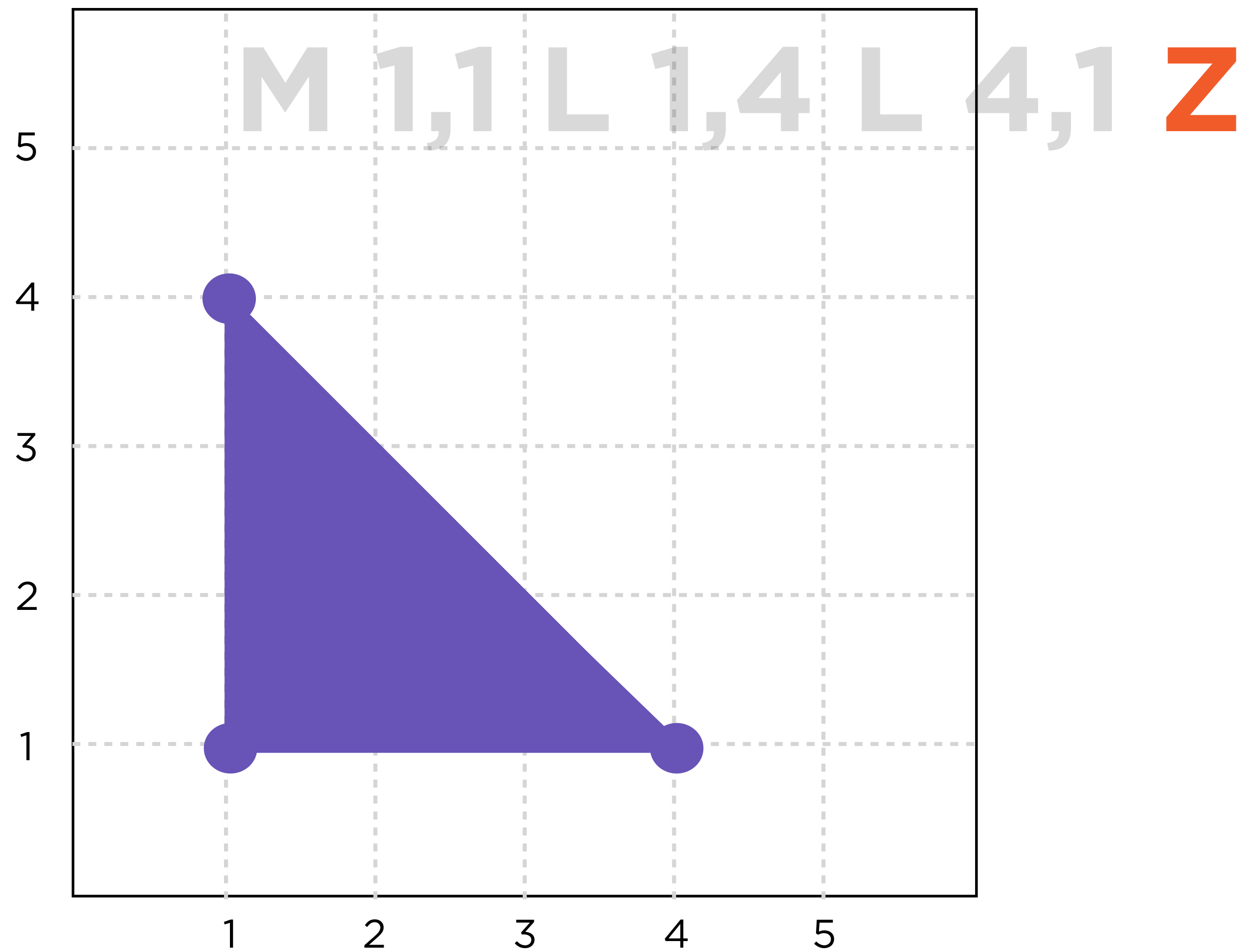
Draw line from 1,1 to 1,4

SVG Path



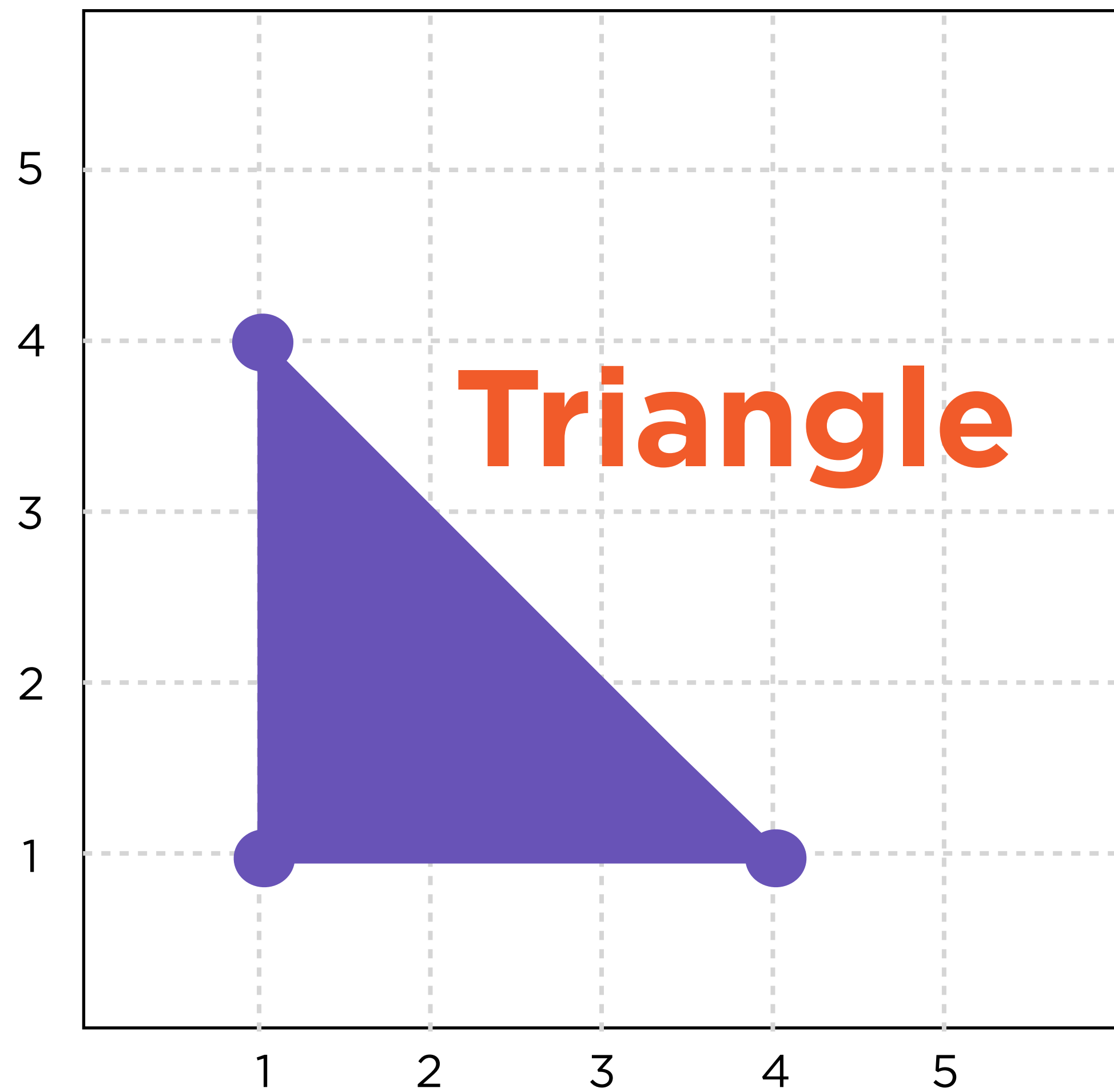
Draw line from 1,4 to 4,1

SVG Path



Close the path

SVG Path



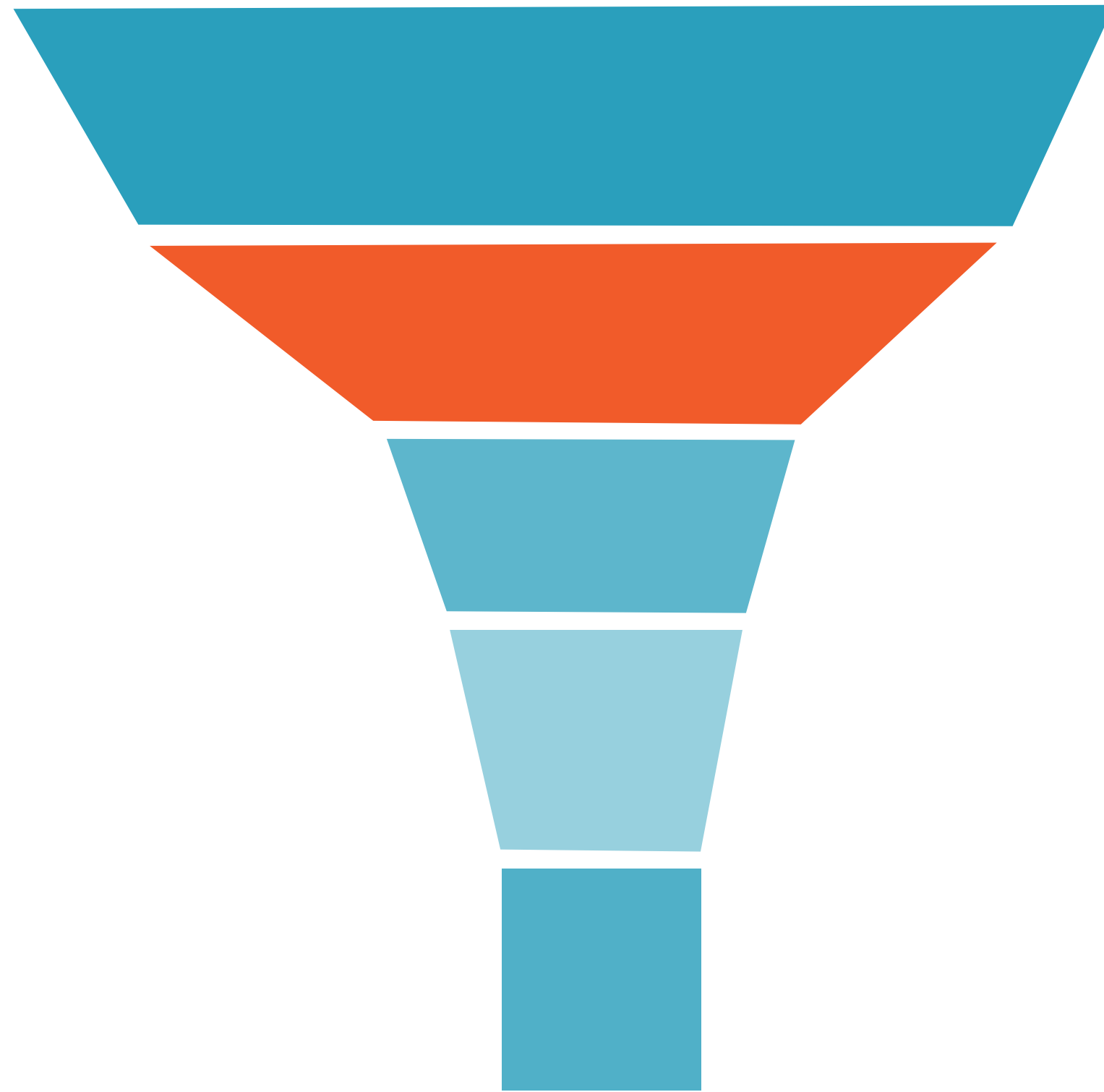
M 1,1 L 1,4 L 4,1 Z

Demo

Introducing shapes

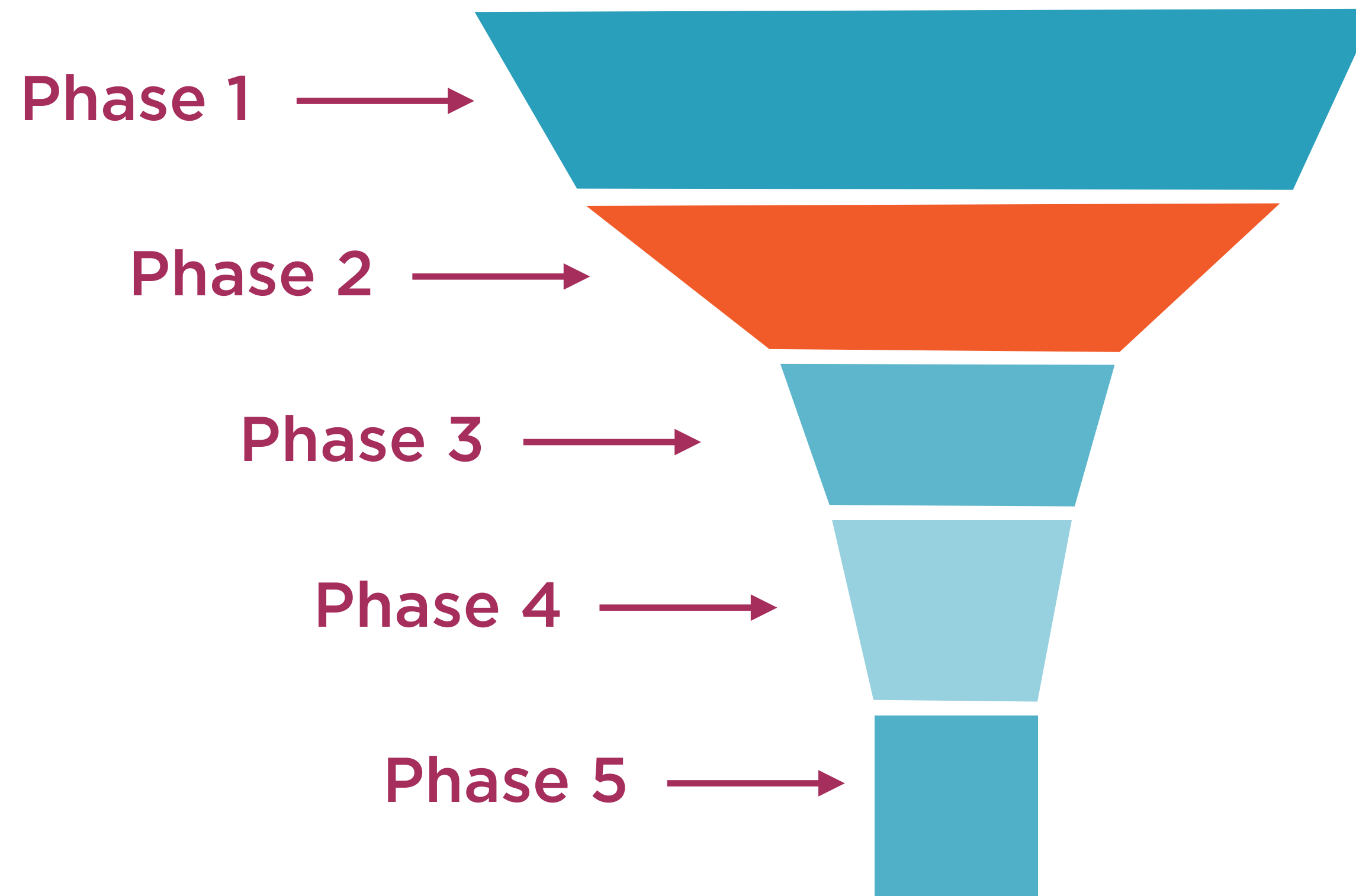
Funnel Charts

Funnel Chart



**Visualize progressive reduction of data as it passes
from one phase to another**

Funnel Chart



Data in each phase is represented as percentage of total

Uses of Funnel Charts



Evaluate recruitment process

Efficacy of steps in sales process

E-commerce order fulfillment

Analysis of promotional campaign

Demo

Funnel charts

Summary

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Plot basic shapes

Use candlestick and funnel charts