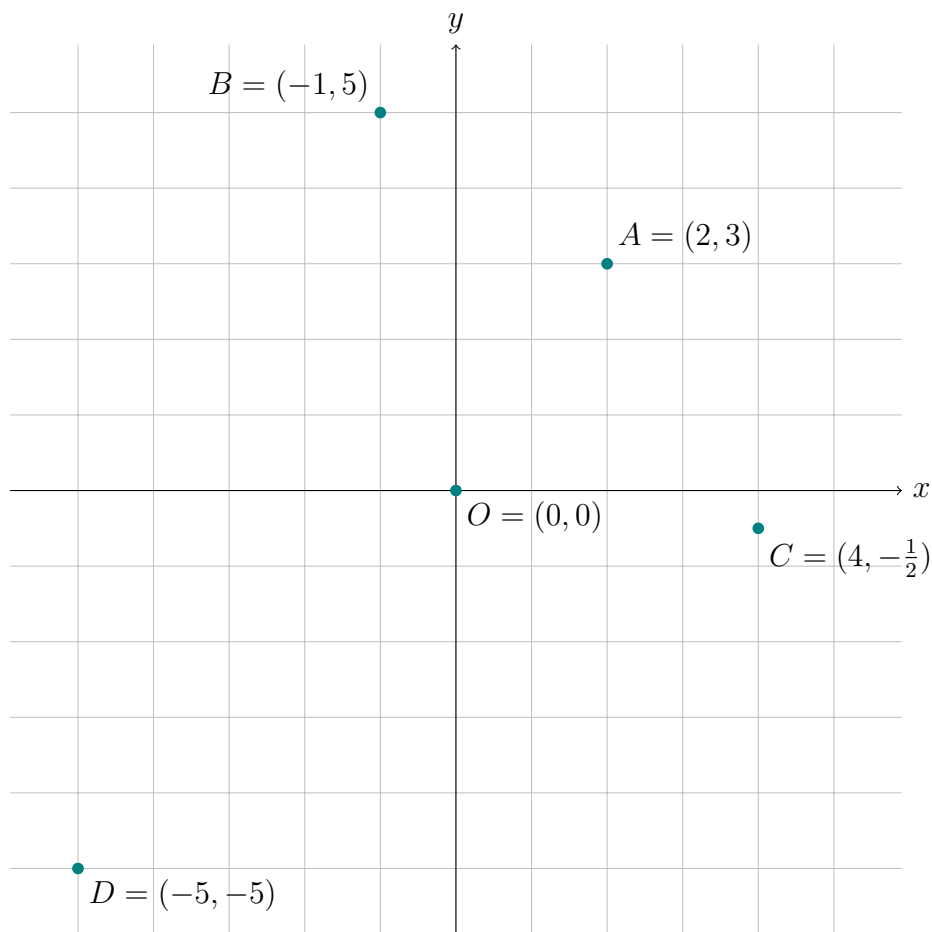# Cartesian Plane: Plotting Points
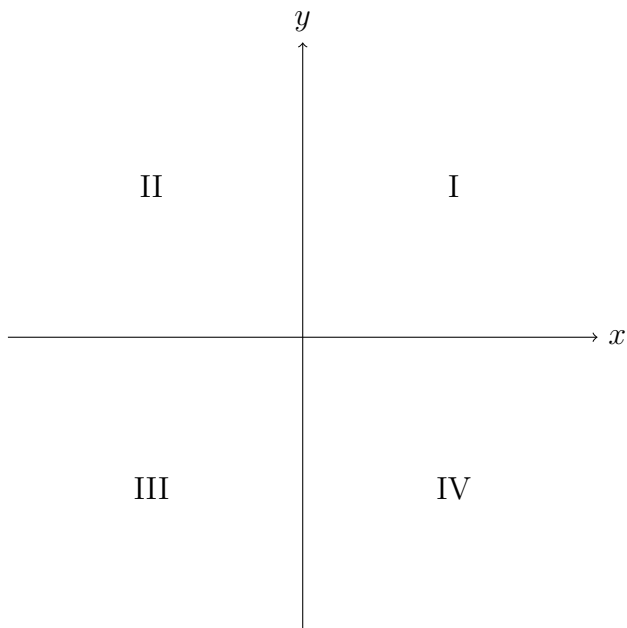
Video companion

1   Introduction

Cartesian plane denoted $\mathbb{R}^2$

2 Axes and quadrants

$$x-\text{axis} = \left\{(x, y) \in \mathbb{R}^2 : y = 0\right\}$$
$$y-\text{axis} = \left\{(x, y) \in \mathbb{R}^2 : x = 0\right\}$$

$$\text{first quadrant} = \left\{(x, y) \in \mathbb{R}^2 : x > 0, y > 0\right\}$$
$$\text{second quadrant} = \left\{(x, y) \in \mathbb{R}^2 : x < 0, y > 0\right\}$$
$$\text{third quadrant} = \left\{(x, y) \in \mathbb{R}^2 : \qquad\right\}$$
$$\text{fourth quadrant} = \left\{(x, y) \in \mathbb{R}^2 : \qquad\right\}$$

3 Real-world example

Table of height and weight:

	h (cm)	w (kg)
A	177	88.3
B	164	74.7