

Definition 21.2. [1NV] Let $I \subseteq \mathbb{R}$ be an interval.

- A continuous function $\gamma : I \rightarrow X$ is called **parametric curve**, or more simply in the following **curve**.
- If γ is injective, the curve is said to be **simple**.
- If γ is a homeomorphism onto its image, the curve is said to be **embedded**.
- If $X = \mathbb{R}^n$ and γ is of class C^1 and $\gamma'(t) \neq 0$ for every $t \in I$, then γ is called an **immersed curve** or **regular curve**.

We will call **support** or **trace** the image $\gamma(I)$ of a curve.

The term **arc** is also used as a synonym for curve; ^a this term is mainly used when the curve is not (necessarily) closed.

^aNote that in the book [26] an *arc* is an injective curve.