

Definition 21.4. *[1NX] Let $I, J \subseteq \mathbb{R}$ be intervals. Let $\gamma : I \rightarrow \mathbb{R}^n$ and $\delta : J \rightarrow \mathbb{R}^n$ be two regular curves. We will write $\gamma \approx \delta$ if there is a diffeomorphism^a $\varphi : I \rightarrow J$ monotonic increasing, such that $\gamma = \delta \circ \varphi$.*

^aA diffeomorphism is a bijective function $\varphi : I \rightarrow J$ of class C^1 , the inverse of which is class C^1 ; in particular φ' is never zero, and (when domain and codomain are intervals) it always has the same sign.