Intermediate Value Theorem Project

Quinn Oveson Carter Hastings

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0.1 Definitions

Definition 1 (Sequence)**.** A sequence is a function $s : \mathbb{N} \to$ for some set X.

Definition 2 (Convergence)**.** A sequence $s : \mathbb{N} \to X$ converges to $x \in X$ if for every neighbourhood U of x there exists $N \in \mathbb{N}$ such that for all $n \geq N$, $s(n) \in U$.

Theorem 3 (Smale 1958)**.** *There is a homotopy of immersions of* $\mathbb{S}^2$ *into* $\mathbb{R}^3$ *from the inclusion map to the antipodal map* $a : q \mapsto -q$.

Proof. This obviously follows from what we did so far. Testing changing my branch □