

Extra Credit Assignment 1

Due Friday, January 22, 11:59 PM

Fix $x \in \mathbb{R}^n$ and equip \mathbb{R}^n with the standard topology.
Show that $\mathbb{R}^n \setminus \{x\}$ is path-connected if $n \geq 2$.
Show that $\mathbb{R}^n \setminus \{x\}$ is not path-connected if $n = 1$.