MAT 542: Algebraic Topology, Fall 2016

Suggested Problems for Week 7

You may hand in solutions to at most 2 problems every 2 weeks and no later than 2 weeks after the necessary material for them is covered in class.


Problem K

Show that $\mathbb{R}^m$ is not homeomorphic to $\mathbb{R}^n$ for any $n \neq m$ and to $\mathbb{H}^m \equiv \mathbb{R}^{n-1} \times \mathbb{R}_{\geq 0}$ for any $n$ and that $\mathbb{H}^m$ is not homeomorphic to $\mathbb{H}^n$ for any $n \neq m$. 