

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.

From Munkres: 21.2, 22.1, 22.5, 28.1-3, 29.2, 30.1, 30.3, 30.4, 30.7

Problem K

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