

548 - Spring 2018 - HW6

March 4, 2018

1. Compute $\pi_n S^\infty$ for all $n \geq 0$ using CW complex methods.
2. Hatcher, Exercise 4.1.12.
3. Hatcher, Exercise 4.1.14.
4. Hatcher, Exercise 4.1.20.
5. Hatcher, Exercise 4.1.22.
6. Hatcher, Exercise 4.2.1.
7. Recall that a space X is acyclic if $\tilde{H}_*(X, \mathbb{Z}) = 0$. Prove that if X is an acyclic CW complex, then the suspension ΣX is contractible.