

548 - Spring 2018 - HW7

March 19, 2018

1. Let A_n , $n \geq 2$, be a sequence of abelian groups. Construct a simply connected space X with $\pi_n X \cong A_n$ for all $n \geq 2$.
2. Fix $n \geq 1$ and A an abelian group. Prove that there is a unique (up to weak homotopy) simply connected space X with $\pi_2 X \cong \mathbb{Z}$ and $\pi_{2n+2} X \cong A$.
3. Hatcher, Exercise 4.2.8.
4. Hatcher, Exercise 4.2.15.
5. Hatcher, Exercise 4.2.18.
6. Hatcher, Exercise 4.2.22.
7. Hatcher, Exercise 4.2.28.