## **HOMEWORK 10 - 2019**

**Exercise 1.** Show that the spaces  $\mathbb{C}P^2$  and  $S^5 \times \mathbb{C}P^\infty$  have the same homotopy groups but they are not homotopic. (Hint: Use fibrations with  $\mathbb{C}P^2$  and  $\mathbb{C}P^\infty$ .)