$HOMEWORK\ 11\,-\,2017$

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 $\mathbb{C}P^\infty$.)