

Exercise 1. holomorphic functions

- a) Let $f : \mathbb{C}^n \rightarrow \mathbb{C}$ be a holomorphic function. The functions $\Re(f)$ and $\Im(f)$ are harmonic
- b) Let $U \subset \mathbb{C}^n$ be a connected open subset. Every non-constant harmonic function $f : U \rightarrow \mathbb{R}$ has no extremum on U