Compute as explicitly as possible $\text{Aut}(U)$ for the following regions $U \subset \mathbb{C}$:

- $U = \{z \in \mathbb{C} | \text{Re}(z) > \text{Im}(z)\}$

- $U = \{z \in \mathbb{C} | \text{Im}(z) > -1\}$