

Exercise. Let G be an open subset of \mathbb{C} and $f \in H(G)$. Define

$$G^* := \{z \in \mathbb{C} : \bar{z} \in G\}$$
$$f^*(z) := \overline{f(\bar{z})} \quad \text{for } z \in G^* .$$

Note (i.e., you need not show) that G^* is open in \mathbb{C} .

1. Show that $f^* \in H(G^*)$.
2. Express $(f^*)'$ in terms of f' .

Hint. Does your solution to part 2 make sense to you geometrically?