# 第八次作业 (Flatten Real-Analytic Boundary)

请于**四月二十五日周五（校历第十周）**当堂上交本次作业。请独立完成。如有参与讨论者，请引用或致谢他们。

1. Let $\gamma$ be a regular real-analytic curve in $\mathbb{C}$. More precisely, $\gamma(t) = (x(t), y(t)) \in \mathbb{C}$ for $t \in (-1, 1)$ such that $x(t)$, $y(t)$ are real-analytic in $t$ and $x'(t), y'(t) \neq 0$ for any $t \in (-1, 1)$. Prove that there is an open neighborhood $\Omega$ of $\gamma(0)$ in $\mathbb{C}$ and a biholomorphic map $f : \Omega \to \Omega' \subset \mathbb{C}$ such that $f(\gamma(t))$ is mapped into a line in $\Omega' \subset \mathbb{C}$.